A Ap

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -MODEL=frame+ p2n.model -DEV=xlh
-Q=/abss/ABSSWEB_spool/US10071838/runat_05042006_141923_5354/app_query.fasta_1
-Q=/abss/ABSSWEB_spool/US10071838/runat_05042006_141923_5354/app_query.fasta_1
-DB=Published_Applications_NA_new_-QFMT=fastap_-SUFFIX=rmpbn_-MINMATCH=0.1
-LOOPET=0 - UNITS=bits -START=1 -END=-1 -MATRIX=blosum62
-TRANS=human40.cdi -LIST=45 -DCCALIGN=200 -THR_SCORE=pct -THR_MXX=100
-THR_MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0
-MAXLEN=200000000 -HOST=abss06h
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -USER=US10071838 @CGN 1 1 541 @runat 05042006 141923 5354 -NCPU=6 -ICPU=3 -NO MMAP -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Command line parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B B
                                                                    Score
               676
                                                                                                                                                                                                                           Published Applications NA_New:*

1: /SIDS5/ptodata/1/pubpna/US06_NEW_PUB.seq:*

2: /SIDS5/ptodata/1/pubpna/US06_NEW_PUB.seq:*

3: /SIDS5/ptodata/1/pubpna/US07_NEW_PUB.seq:*

4: /SIDS5/ptodata/1/pubpna/PCT_NEW_PUB.seq:*

5: /SIDS5/ptodata/1/pubpna/US09_NEW_PUB.seq:*

6: /SIDS5/ptodata/1/pubpna/US09_NEW_PUB.seq:*

7: /SIDS5/ptodata/1/pubpna/US10_NEW_PUB.seq:*

8: /SIDS5/ptodata/1/pubpna/US10_NEW_PUB.seq:*

9: /SIDS5/ptodata/1/pubpna/US10_NEW_PUB.seq2:*

10: /SIDS5/ptodata/1/pubpna/US11_NEW_PUB.seq3:*

11: /SIDS5/ptodata/1/pubpna/US11_NEW_PUB.seq3:*

13: /SIDS5/ptodata/1/pubpna/US11_NEW_PUB.seq3:*

14: /SIDS5/ptodata/1/pubpna/US11_NEW_PUB.seq3:*

15: /SIDS5/ptodata/1/pubpna/US11_NEW_PUB.seq3:*

16: /SIDS5/ptodata/1/pubpna/US11_NEW_PUB.seq3:*

17: /SIDS5/ptodata/1/pubpna/US11_NEW_PUB.seq3:*

18: /SIDS5/ptodata/1/pubpna/US11_NEW_PUB.seq3:*

19: /SIDS5/ptodata/1/pubpna/US11_NEW_PUB.seq3:*

19: /SIDS5/ptodata/1/pubpna/US11_NEW_PUB.seq3:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                length: 0
length: 2000000000
         Query
March
22.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-071-838-2
2983
1 MDVVEVAGSWWAQE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Xgapop 10.0 , X
Ygapop 10.0 , Y
Fgapop 6.0 , F
Delop 6.0 , I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9267905 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     April
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MDVVEVAGSWWAQEREDIIM.....TSGPCLCGLHLESSQFPPGF 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Copyright
                                                                    Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   'n
             378
378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2006, 15:02:05; Search time 532 Seconds (without alignments)
4128.393 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Xgapext
Ygapext
Fgapext
Delext
               ი ი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000278028 residues
                                                                    ä
             US-09-925-065A-506683
US-09-925-065A-506682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0.5
7.0
7.0
                                                                Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ltd.
         Sequence 506683, Sequence 506682,
APPLICATION NUMBER: US 60/252,147
PRIOR FILING DATE: 2000-10-24
PRIOR FILING DATE: 2000-10-26
PRIOR FILING DATE: 2000-11-20
PRIOR RAPPLICATION NUMBER: US 60/252,147
PRIOR PRICATION NUMBER: US 60/250,092
PRIOR RILING DATE: 2000-11-30
PRIOR APPLICATION NUMBER: US 60/250,092
PRIOR APPLICATION NUMBER: US 60/261,766
PRIOR REPLICATION NUMBER: US 60/261,766
PRI
                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 1
US-09-25-065A-506683/c
; Sequence 506683, Application US/09925065A
; Publication No. US20040181048A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                იიი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                292
292
292
292
290.5
290.5
290.5
290.5
296.5
256.5
256.5
256.5
256.5
256.5
256.5
256.5
256.5
256.5
256.5
256.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               348.5
313.5
311
297.5
297.5
297.5
297.5
293.5
293.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         367
367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            380
380
367
367
367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14.6
112.7
112.7
112.7
112.7
112.3
112.3
112.3
112.3
112.3
112.3
112.3
112.3
112.3
112.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              φφφ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2834
3431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1052
1052
1294
1294
1294
1294
1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                14 US-11-011-332A-74

US-09-925-065A-16910

US-09-925-065A-16911

US-10-301-480-118147

US-10-301-480-731557

US-10-301-480-731557

US-09-925-065A-55408

US-09-925-065A-55409

US-10-301-480-770056

US-10-301-480-770056

US-10-301-480-770056

US-10-301-480-770056

US-10-301-480-77056

US-10-301-480-77056

US-10-301-480-77056

US-10-301-480-77056

US-10-301-480-77056

US-10-301-480-77056

US-10-301-480-77056

US-10-301-480-77056

US-10-301-480-77057

US-10-301-480-77573

US-10-301-480-77573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10 US-10-201-480-643768
US-09-925-065A-69533
US-09-925-065A-69535
US-10-301-480-170772
US-10-301-480-784181
US-10-301-480-784183
US-10-301-480-784183
US-10-301-480-784183
US-10-301-480-784183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-301-480-78418;
US-11-124-368A-38
US-11-128-061-2085
US-11-128-061-5727
US-11-128-049-2085
US-11-128-049-2727
US-11-000-5886-949
US-11-469-041-16
US-11-332A-86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-932-182A-78197
US-09-925-065A-9583
US-10-301-480-110820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-301-480-724229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 777573,
Sequence 30359, A
Sequence 643768,
Sequence 69535, A
Sequence 69535, A
Sequence 170772,
Sequence 170774,
Sequence 784181,
Sequence 784182,
Sequence 170773,
Sequence 170773,
Sequence 2085, Appl
Sequence 2085, Appl
Sequence 5727, Ap
Sequence 5727, Ap
Sequence 5727, Ap
Sequence 65727, Ap
Sequence 1727, Ap
Sequence 949, Appl
Sequence 1727, Ap
Sequence 949, Appl
Sequence 9581, Appl
Sequence 9583, Ap
Sequence 724229,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 770055,
Sequence 770056,
Sequence 23142, A
Sequence 534386,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 16911, A
Sequence 16911, A
Sequence 118147,
Sequence 118148,
Sequence 731556,
Sequence 731557,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 6617,
Sequence 62926,
Sequence 164164,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 55408, A
Sequence 55409, A
Sequence 156646,
Sequence 156647,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               74, App.
```

იი

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                       APPLICANT: Wang, David G.
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nuclectide Polymorphisms in the Human Genome
FILE REFERENCE: 106827.135
CURRENT APPLICATION NUMBER: US/09/925,065A
CURRENT FILING DATE: 2001-08-08
PRIOR APPLICATION NUMBER: US 60/243,096
PRIOR APPLICATION NUMBER: US 60/243,096
PRIOR APPLICATION NUMBER: US 60/252,147
PRIOR FILING DATE: 2000-10-24
PRIOR APPLICATION NUMBER: US 60/252,147
PRIOR APPLICATION NUMBER: US 60/250,092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 2
US-09-925-065A-506682/c
; Sequence 506682, Application US/09925065A
; Publication No. US20040181048A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                       ; ORGANISM: Homo sapiens 
US-09-925-065A-506682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-071-838-2 (1-549) x US-09-925-065A-506683 (1-378)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; ORGANISM: Homo sapiens US-09-925-065A-506683
                                                                                                 Score:
                                                                                                                    Pred. No.:
                                                                                                                                       Alignment Scores:
                                                                                                                                                                                                                                             SOFTWARE: FASCSU,
SOFTWARE: FASCSU,
SEQ ID NO 506682
*ENGTH: 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQ ID NOS: 957086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57
                                                                                                                                                                                                                                                                                                    FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrp 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCGCGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCRGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCCGGGAAGACCCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
    2.32e-32
667.00
99.2%
99.2%
22.4%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6.52e-33
676.00
100.0%
100.0%
22.7%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                    Length:
Matches:
Conservative:
                          Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          378
119
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    380
                CURRENT APPLICATION NUMBER: US/11/011,332A
CURRENT FILING DATE: 2004-12-13
PRIOR APPLICATION NUMBER: US 10/517,741
PRIOR FILING DATE: 2003-10-01
PRIOR FILING DATE: 2003-10-01
PRIOR PPLICATION NUMBER: DE 10245779.4
PRIOR PPLICATION NUMBER: DE 1030096.8
PRIOR PILING DATE: 2003-10-01
PRIOR APPLICATION NUMBER: DE 1030096.8
PRIOR PILING DATE: 2003-01-07
PRIOR APPLICATION NUMBER: DE 10317955.0
PRIOR PILING DATE: 2003-01-17
PRIOR PILING DATE: 2003-01-17
PRIOR APPLICATION NUMBER: DE 10317955.0
PRIOR PILING DATE: 2003-01-17
PRIOR APPLICATION NUMBER: DE 10317955.0
PRIOR PILING DATE: 2003-01-17
PRIOR APPLICATION NUMBER: DE 00390432.0
PRIOR APPLICATION NUMBER: DE 0409041.7
PRIOR APPLICATION NUMBER: DE 0409041.7
PRIOR APPLICATION NUMBER: DE 0409041.7
PRIOR PILING DATE: 2004-09-10
PRIOR FILING DATE: 2004-09-30
PRIOR FILING DATE: 2004-09-30
PRIOR PILING DATE: 2004-09-30
PRIOR REPLICATION NUMBER: DE 04090380.9
PRIOR PILING DATE: 2004-09-30
PRIOR PILING DATE: 2004-09-30
PRIOR PILING DATE: 2004-09-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-11-011-332A-74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-071-838-2 (1-549) x US-09-925-065A-506682 (1-378)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Foekens, John
APPLICANT: Harbeck, Nadia
APPLICANT: Koenig, Thomas
APPLICANT: Koenig, Thomas
APPLICANT: Maier, Sabine
APPLICANT: Maier, Sabine
APPLICANT: Model, Fabian
APPLICANT: Momerich, Inko
APPLICANT: Rujan, Tamas
APPLICANT: Schmitt, Manfr
APPLICANT: Lesche, Ralf
APPLICANT: Lesche, Ralf
APPLICANT: Mueller, Volkm
APPLICANT: Kluth, Antje
APPLICANT: Schwope, Ina
APPLICANT: Schwope, Ina
APPLICANT: Adorjan, Peter
APPLICANT: Adorjan, Peter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 74, Application US/11011332A Publication No. US20060024684A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Schwope, Ina
APPLICANT: Hartmann, Oliver
APPLICANT: Adorjan, Peter
APPLICANT: Adorjan, Peter
TITLE OF INVENTION: PROGNOSTIC MARKERS FOR PREDICTION OF TREATMENT RESPONSE
TITLE OF INVENTION: BREAST CELL PROLIFERATIVE DISORDER PATIENTS
FILE REFERENCE: 47675-99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    461 AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACCTGGACGTAGAGGGCCCTTGGTTCCGCCRTTATGATTTCAGACAGAGCTGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Dietrich, Dimo
Mueller, Volkmar
Kluth, Antje
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Schmitt, Manfred
Lesche, Ralf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nimmrich, Inko
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Koenig, Thomas
Maier, Sabine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             s, John
Fabian
         2004-04-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nadia
```

AND/OR

479

88

440

118

420

238

Db 6062 CCAGAGCACAACAAACAGGACAGGCCGTGTCGGGGGCCCAGGTCTCCAGCTGGAGGGAACG 6121	Оу 130 130	6003 CCTCCTGAACATTGAAGAAATGAAGTTGAAAAAACCCCGGAAGATACCAGGT-ACGCTCAG		5943 GCT	95IleAgpArgAlaTvrLvgGlvMetProMetAgnTleArgGlvDroMetTrnSerVa	5883 GCTCTGGTCCTCACTGGGGTCACCCCGTGGCCTGTGACACCAGATCGTTTTCTGCCCACA		5823 TTGATCTCACCTCTACTGAGGAATCATGGGGCCAAAACCGACAATTTCCCAGAATCCCCGG		Db 5763 GTTTCGACTCTGAGTGTCCATCCACTCTTTCAGTCCTGGGAAGGGAGACCCTGTCCCAGC 5822		5703 CCGGAGCTCAAGGCTAGGGATGCCCTGGTGACCTGAAGGAAAGGAAAGGTTCAGATCAGA	94	5643 TGCCTATTCGTGCAAGCGTCACCTTGCAGGGAGGGAATCTGAATCTAGGGCTGGGACTAC		Db 5583 AGAGGGTGGGCGCACACTGTCCTCGCCCAGAGGACTGCAGGCCTGGTCGCCAGATTTCC 5642	Qy 94 94	5523 ACTCTCTGCAGAGACAGGGGACAGGCACCCATGGCTGTGGCCTGGCACCATCAGCCTCTC	Qy 94 94	Db 5464 GCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGGT-AACGTGTGGAGGGAGGAAGC 5522	Oy 81 tLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeu94	Db 5416ACAGCAAATTCGGCGGGAGATCAGCCGAAAGAGCAAGTGGGTGATAT 5463	Qy 62 AlaArgCluAlaLys-ClnIleArgArgCluIleSerArgLysSerLysTrpValAspMe 81	Db 5392 GCTAACTCCAACATGCCTCATTTG5415	Qy 42 TyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeuThr 61	5332 CAGGGCTCCAGAGCCCAAGACCCAGCATCCGCGGGCGCTCTGGGAAGCCTGGCACCTCC	Qy 24 LysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArgSer 41	JS-11-011-332A-74 (1-10490)	14.6% Indels:	Percent Similarity: 15.4% Conservative: 4 Best Local Similarity: 15.2% Mismatches: 20	4.71e-17 Length: 437.00 Matches:	μ.	; ORGANISM: Homo Sapiens US-11-011-332A-74		; Remaining Prior Application data removed - See File Wrapper or PALM. ; NUMBER OF SEQ ID NOS: 158 · SEO ID NO 74
		Db	St.	ממ	Q	В	QY	Db	Q	Db	δ	ф	Q	Db	Qy	Db	Q	Db	5	Db	. 8	Db	. Q	Db	. Q	Db	\$	da	Ş	DЬ	S S	дb	δλ	ממ	γ
/142 LGGAAGACCCAGTGAGAAAAGGGAACGAGCCGGTGATGCCCGCACGAACGTGGGTTGGATC /201		GCCTTCGGGGACGGCCTTCAACACGGGGATGGGGGAGAGCCAAGGCTGGTCCTCCCTTCAAA	166 166	7022 CATCCACATGAAACCAGCATGCCAGGTTCACTGCTTGACTCCTCGTCACTCAC	166 166	6962 GACTTGAACCACACATCCCCAAAGTGTCACAGATATTGAACCCACTGATTTGCAAACTGA 7021	166 166	6902 AACATGACATGGCACAGCCACGTTGGCAGCCCGTTGGGCAGTGGCTCACAAAGCTCGATG 6961	166 166	6842 GACAGCACCAAATGCTGGGAGAATTAGGGGTCCTGGAAACTCTCATCCAGGTCCGCTGGG 6901	166 166	6782 GGTAGGACCCACGGGAGGGTGGCAGGATAGAGGGCCCATGAGCCCCCCCC	166 166	6722 GCAGCAAACAAAATCATGCACAATGGTGAAGGGTGCTCTCCCTGACCCATGGGGACCCAT 6781	166 166	6662 CCCTGGGCCAGACTGGAACATGTGGGGCCAGAACCCAGGAGGATCCTGAGGAGATGGAAG 6721	166 166	GAGCTCTCCCGGCCCAGGGAGCAGCCGGCACCATGAACCGAGCACCTCCCTGGTTCCAAG	166 166	GATGGGGGCTTCCCCGGAGCAGAAGCCAGGGTCACCCAGGAGGGATGACACAGCTGCCAA	166	CGGAACCAAGTAAGCCTACGGGAGCCACAGGGTCCCAGCAGAGATGGGGTGAATGAGAGG	163 rGlyThrLys	GCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGGGATCGATA	143 nArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArgAspArgTy	6362 TCTTGGCCCTGCCCTACAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAGCACATCCA 6421	131MetLysGluLysGlyLysArgSerSerGluHisIleG1 143	6302 TGTGGGCTGACTGCCACTGGGGGCAGGGAGTCTTCCATCTGTTCTGAGACTGCTTCCTCC 6361	130 130	6242 AAAATGCAGCTTTCTGCAGAAGGAAACCTTCCTTCTGTCCTTCCT	130 130	6182 GACACAGTCACCACAGACAAACTCAGCTCTGGTGACCCTCCCT	130 130	6122 TCAAGACCACCCTGGGGAGCTGGGGGTGAAGGTCAGATGAACACCCCTGGGCACAGATGGT 6181	130 130

252 252	183GluV	9 !
9301 CCCTGCCTCCCGTGGGGCTGTAGGAGCAGGGGGGCTGGAGCCCCCTCGTGGGGGCTGGTGAC 9360	こうしんしょう しんしんしん しんしんしん しんしんしん しんしん しんしんしん しんしん しんしんしん しんしん しんしんしん しんしん しんしんしん しんしんしん しんしん しんしん しんしん しんしん しんしん しんしんしん しんしん しんしん しんしん しんしん しんしん しんしんし	Į,
252	182	9
9241 CACAACCCAAGACCATGGGGCATCAGGTGAGTTTATGGTCCCCTCAGCTCTTCCCAGAGG	œ	멅
246 erg.heroly8:nrwccg1y	Qy 182 182 Qy	9
STOI GUCCHANIOGUCATUCATUCAGAGATUCATUCATUCATUCATUCATUCATUCATUCATUCATUC	Db 8102 CGCACACAGGATGGTGCTATCAGCAGACATTTTGGACAAGGTGCTGAAGTGCCTGATGGA 8161	₽
TECHNOLOGY TO THE TECHNOLOGY T	Qy 182 182	9
226 erProAsnolvGlyThrvalGlnGlyLeuGlnAsnGlnGlnGluHisValValAlaThrS	Db 8042 AGAACAAGAAATGACGCCCTCCTCCTGGGGCTGCCCCAAAGCCCCAGGAGCTTGGCAGCAT 8101	ğ
9121 CCACATCTTGGGGGAAGGCTCTGATTTCATGATGGGGTGGGGGGCTTCTCAGGATTTCACA	Qy 182 182 Db	S
189 Hadda Lineagair i gaagaacti ta aa	7982 AGACACAGAGGAGTCAGGGCCTGGACTCCTGGTGTCACCTGGGCCTGACCACCACTTCTC 8041	멀
222	182 182	9
9001 GAATGTTCCCGCCCCACCTCCCCAGGGTAAAGGCCGCATGTTGGGGTCACCAGATGGGAG	TGTCAGCTCACCGCTGGCATAAACCTCCAAGGAAGGGGGTGGTCTCAAGGGGTCAAGCTG 7981	<u>p</u> (
222 222	192	9 5
8941 TTGCCCTTTTTGCACCCTGGCCCAGGAGGCCTCCAGGGGAACCTCCAGGCCAGGCTCCAGG 9000	Oy 182 102 Db	2 5
, 222 222	7802 TTCCCGGCAGTGAGGTTCCCGGGCCATAITTCCAIATTGACAGGAGTGGGTGTCTGGTGG) <u>p</u>
8881 GACCGGGAAGCCCAGCGCCCACCCAGTTCCGGCCCACCCTGTCGTGGCCTGAAAGTCAGGC 8940	182	. 9
222 222	7742 CTAGGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTACAACCCGGTGAGTA	므
8821 GCCCAGGTGGCAGCATCTCCCCATCCCCTGTTCCCTGGCCCGACCCCACTACCAGGAGAT 8880	167GlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyrAsnPro 182	9
222 222	AGACAAAGTGAAATTAACAACATCTGCACAAAACAAACCAAAGCCCCCTTTCTCTGTTTC	₽
8761 TCCTGCCCTCCAGCTGCCCGGGCTCCTGCTGCCATCGGTGCCCACGAATGGGCCGACCAA 8820	166 166	9
, 222 222	7622 GCTCACTGCTTATCTGGTGAAACATCTGAAACCTGAAATGGGATTTGCTGTTAGGCTTTGT	Ď
80	166 166	9
222	Db 7562 TGCATGTCACAGATGTGGATTTTACTGAAAACATTTCTTCAAGAGTCTCAGGCCCTGAAGA 7621 Qy	Ď
8641 ACGCCTCTCATCCCCATCAGCAGAGGGCATCTCATCCTCCCCGTGGCCCACCCTCTGTGTC	Qy 166 166 Db	9
222	Db 7502 AAAAAAAAAAACATTCAGAGTGAAAAGGATCAGGCAAGTCACTGTACAACTGGGCTATT 7561	ᄗ
œ	Qy 166 166 bb	9
222	Db 7442 GGAACCGTGGAGGAACTGTACACCCACAGACTGAACTGGCGTGTGTGCAAACTGAAAAAA 7501	₽
R521 GGTGATCACAGCTTTCAGCCAAGGCACCCTCCTTGTGTCGCCAGCTTGTTGGGAGACTTT	Qy 166 166 nh	9
	Db 7382 ATGAAGGAGTCGCCCCAGGAGGGGCTGGAGCGGTGGCCGGGAGACTCTGCACATTGGTTT 7441	멎
8461 AAGTGAACAGCTGCCCCGGGGACCTCCTGCAGCCAGACCTGGGGATGGCCACCCTGGCCA	Qy 166 166 ph	9
222	Db 7322 CAGGGGCTGACGGATCGGGGAGAGGCTGGGTGCATAGGGGCCACCCTGGAGACTTGGAGG 7381	무
8402 AGGATGCATTCTGGGCACTGCTGGAGCTGCTGGCCAGTGAGAGGCACTCCCTGCA-GGGT	Qy 166 166 pb	9
2004 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000 10000	Db 7262 CATTCCTAGGCCATTCTGGAAAAGGCCAAACCACAGGGACTGAGAAGCAGTCTGGGTGGC 7321	뭐
184 aligiyyyr/yaargaspieduseriisileaataataataataataataataataataataataataat	Qy 166 166 Ph	9
8282	7202 CTAGATGCATTTTGCTGAGGGACAGAAGCCAGAACCCAATAAGCTACCACAGTAGGATTCC 7261	멅
	Qy 166 166	S

```
δ
                                                                                                                                  RESULT 4
US-09-925-065A-16910
                                                                                                                                                                                 밁
                                                                                                                                                                                                          á
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                     Sequence 16910, Application US/09925065A Publication No. US20040181048A1 GENERAL INFORMATION:
APPLICANT: Wang, David G.
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nucleotide Polymorphisms in the Human Genome
FILE REFERENCE: 108827.135
CURRENT APPLICATION NUMBER: US/09/925,065A
CURRENT FILING DATE: 2001-08-08
                                                                                                                                                                                                                                           10201
                                                                                                                                                                                                                                                                                                   9901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9361
                                                                                                                                                                                                             304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    258
                                                                                                                                                                                GCCTTTAAGGTTCAGCAGAGTAAGTCTACGTGTGCCCAGCGG
                                                                                                                                                                                               AlaPheLysValGlnGlnLysArgLeuThrLysThrSerArg
                                                                                                                                                                                                                                         CGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATAACAAGAATC
                                                                                                                                                                                                                                                           ArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIleThrArgIle
                                                                                                                                                                                                                                                                                                                                                             GGTCACTGACTCTGGAGACTGAAGCCCCAGTGTGCGCAGCTCGAGCCACCAGCCCAGCC 10140
                                                                                                                                                                                                                                                                                                                                                                                                                      GAGCTTCAAGACCTTGTCTGACCCAGCGTCCTGGAGGGCTCAGGCGACCCTCATGGGGAA 10080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTGGGCAAGCCCCTCTCCCAGGAGCCACATCCCCACTCAAATGAGTGCCCCCCATGAG 10020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CAGCCTCATGGGCAGACTGGGCCAGGACCCGACTTGAGAGGGGCTCAGGGAAGCCTCAAGC 9960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACAAGCAAAACCCTCTGCCCAAGGGGGGTCATCCCAGGGCCATGGCTGGGGCTCAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGITTTTAGGGCAGCCCAGTGGCCTGAGCACCTCTGTTGCTTCCATCAGGACAAGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCTGGACACCGCCCAGTGTTCTGCACTAGGGGGAAGGGTCTTCAGAGGCCCTGGAAGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCAGGGCAAAGGGCAGTGTGTCCACCGGGAGTGTGGGGAAGGTGACAGTGTTGTGGGGAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTTTCCTTTCCTGCCCTGGAGGAGACAGAGGCACAGGGATGGGGGCCCAGCTCCCGCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCCCGGGGGTCTGGCTCACTCCCAGCCCACAGGAGGCTCAGGCGGGTCCCCAAAGGACA 9840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAGGCATAGGGAGACCCTGGCTCAGGGACCTTCCTTGCCCTGCAGTGCCCTGCTTCCCC 9780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     spLeuCysGlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAsp-Gly---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGCTGAGTCCCAGCCAGGGCCTGACCTGGGACGTCGGGTTCTCCATGGGCTGGGAGTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----HisGlnAspLysLysA 258
                                                                                                                                                                                                                                                                                                                       -IleSerLeuGlyLeuThrLeu
                                                                                                                                                                                                            317
                                                                                                                                                                                10302
                                                                                                                                                                                                                                                                     303
                                                                                                                                                                                                                                        10260
                                                                                                                                                                                                                                                                                                   10200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          9600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9480
                                                                                                                                                                                                                                                                                                                                                                                                                                                      276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             252
δ
                          맑
                                                     S
                                                                                     밁
                                                                                                           S
                                                                                                                                             밁
                                                                                                                                                                         δ
                                                                                                                                                                                                                                  S
                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-071-838-2 (1-549) x US-09-925-065A-16910 (1-1052)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-925-065A-16910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: US 60/243,096
PRIOR PILING DATE: 2000-10-24
PRIOR PPLICATION NUMBER: US 60/252,147
PRIOR PILING DATE: 2000-11-20
PRIOR APPLICATION NUMBER: US 60/250,092
PRIOR PILING DATE: 2000-11-30
PRIOR APPLICATION NUMBER: US 60/261,766
PRIOR APPLICATION NUMBER: US 60/261,766
PRIOR PILING DATE: 2001-01-16
PRIOR APPLICATION NUMBER: US 60/289,846
PRIOR FILING DATE: 2001-05-09
NUMBER OF SEQ ID NOS: 957886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: FastSEQ for Windows Version SEQ ID NO 16910 LENGTH: 1052
                                                                                                                                                                                                          427
                                                                                                                                                                                                                                      310
                                                                                                                                                                                                                                                                                                  309
                                                                                                                                                                                                                                                                                                                                                             309
 373
                             607
                                                        353
                                                                                     547
                                                                                                                 333
                                                                                                                                                 487
                                                                                                                                                                             313
                                                                                                                                                                                                                                                                    367
                                                                                                                                                                                                                                                                                                                              307
                                                                                                                                                                                                                                                                                                                                                                                         247
                                                                                                                                                                                                                                                                                                                                                                                                                        309
                                                                                                                                                                                                                                                                                                                                                                                                                                                   187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         67
alProAlaSerArgGlyGlyLysThrLeuCysLysGlyAspArgGlnAlaPro-ProGly
                                                                                                             aArgAspGluAspThrValLeuLysHisLeuArgAlaSerMetLysLysLeuThrArgLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuMetProIleThrArgIleAlaPheLysValGlnGln-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCTCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAla 296
                             GCAGGGGACCTGCCACCCCCAGGTG-
                                                sGlnGlyAspLeuProProPro-AlaLysProGluGlnGlySerSerAlaSerArgProV
||||||||||
                                                                                       CAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAA
                                                                                                                                                  GAAGACGTCCAGGTGTGGCCCGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGC
                                                                                                                                                                           rLysThrSerArgCysGlyProTrpAlaArgPheCysAsnArgPheValAspThrTrpAl
                                                                                                                                                                                                          GTGACCATTCCCAGGTAACTCCCCTGGCCTGATATCCACCCTGTCCCTAGAGCGCCTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCCTCATGATCCKCTGTTCTGGCCCAGAGGGAGGTCTGGCCAGGTGGGCTGGGCAGGAC 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGGGGCCTGGGGAGCCCTGGGGTCAGACCCCGACTGGCCCGAGGGCAGCTTCCTCACACT 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCCACAAAAGGATCCGGCACCGCCCAGTAGGAGACTGAAGTGGCCACGGGATATGAGCT 426
                                                                                                                                                                                                                                                                                                                            CTTCCCTGTCCGGATCGCCCCCCAGCCACAGTCTCCTGTGTATATCTGGACACCTGGGGT 366
                                                                                                                                                                                                                                                                                                                                                                                       ACTGTGACACCGAGCCCATCCCCCACATGACCCCAGATGAAAGTCGAGAGTGTGGTGAGCA 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2.05e-14
380.00
34.7%
32.3%
12.7%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4.0
                             GGCTCCAGTGCCATGTCCCCT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1052
133
10
60
210
                                                                                                                                                                                                                                     --Lys-ArgLeuTh
                            653
                                                                                     606
                                                                                                                353
                                                                                                                                                                           333
                                                                                                                                                                                                          486
                                                                                                                                               546
                                                                                                                                                                                                                                     313
                                                                                                                                                                                                                                                                                                309
                                                                                                                                                                                                                                                                                                                                                           309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   66
```

Duery Match: 612.7%	Pred. No.: 2.05e-14 Length: Pred. No.: 380.00 Matches: Percent Similarity: 34.7% Conservative: Best Local Similarity: 32.3% Mismatches: 60	865	, 1, g	; SOFIMARE: FABCSEV FOR WINDOWS VERSION 4.0 ; SEQ ID NO 16911 ; LENGTH: 1052	FILING DATE: 2001-05-09 R OF SEQ ID NOS: 957086	FILING DATE: 2001-01-16 APPLICATION NUMBER: US 60/289,	; PRIOR HELLCATION NUMBER: US 60/250,052 ; PRIOR FILING DATE: 2000-11-30 ; PRIOR APPLICATION NUMBER: US 60/261,766	APPLICATION NUMBER: US 60/252, FILING DATE: 2000-11-20	APPLICATION NUMBER: US 60/243, FILING DATE: 2000-10-24	'INVENTION: Nucleotide Polymorphisms ERENCE: 108827.135 APPLICATION NUMBER: US/09/925,065A	APPLICANT	Sequence 1 Publication GENERAL IN	SULT 5	1017	Qy 539 isLeuGluSerSerGlnPheProPro 547	Db 963 CCTCCCTGCAAGCACCCACAGCCTCAGAGAGCAGCAGAGGCCCCTCACTCCTGC 1016	Qy 525 GlnProCysAlaproThrSerGlyProCysLeuCysGlyLeuH 539	Db 903 CCCTCGCAGGGCCCTCCAAGTTACTAGACGAGCCCAGACCCATTTGTGGGAGACCCCGCC 962	Qy 513 SerhapGlnGlyThrProPheArgAlaArgAapGlu 524	Db 858	Qy 493 TrpGlnAlaGluHisÞroAlaGluArgValArgSerAlaÞheAlaAlaÞroSerThrAsp 512	837AGGAGGGGATGTGGGCAAGA	Qy 473 AspPheArgGlnSerCysTrpValArgAlaIleSerGlnGluAspGlnLeuAlaProCys 492	Db 822 ACATGCTGTGCACGC 836	Qy 453 AsnSerMetProArgLeuProThrAspLeuAspValGluGlyProTrpPheArgHisTyr 472	Db 798 AGGCGCTCAGTGCGT	Qy 433 ValProSerProAlaLeuAlaGlnGlyGlyProGlnGlySerTrpArgPheLeuGlnTrp 452	745C	Qy 413 SerThrProCysProGlyGlyAlaValArgGluAspThrTyrProValGlyThrGlnGly 432	CCCGCAACCCTACTACCTGGGCCTTCCTCTTCACCTTTTCTTCCT	303 DroDroalaargDhoDroArgDroIleTroSeralaSerProDroArgAlaDroArgSer	Db 654CCATGTCACCCTCTGGGGTAGTCAGTAGTAGGGGAGTGCCCGGGA 699
- 4 × 1 0 1 0 0 P 0-4 4 × 0-6 0-6 0-6 0 D 1 0 1 0 1 0 1 0 1 0 1 0 -6 0-7 0		822		798	745	413 SerTh	700		654	607	353		487	313	Db 427 GTGACCATTCCCAGGTAACTCCCCTGGCCTGATATCCACCCTGTCCCTAGAGCGCCTCAC		Db 367 GGCCACAAAAGGATCCGGCACCGCCCAGTAGGAGACTGAAGTGGCCCACGGGATATGAGCT 426		Db 307 CTTCCCTGTCCGGATCGCCCCCCAGCCACAGTCTCCTGTGTATATCTGGACACCTGGGGT		Db 247 ACTGTGACACCGAGCCCATCCCCCACATGACCCAGATGAAAGTCGAGAGTGTGGTGAGCA 306		Db 187 GTCCTCATGATCCTCTGTTCTGGCCCAGAGGGAGGTCYGGCCAGGTGGGCTGGGC		Db 127 CGGGGCCTGGGGAGCCCTGGGGTCAGACCCCGACTGGCCCGAGGGCAGCTTCCTCACACT 186		67	297	7	277	10-071-	ry Match:

Db	Ş	Ф	Ş	Db	Ş	B	ફ	DЪ	Ş	Вb	ş	US-10-071-838-	Query Ma DB:	Percent Best Loc	Pred. No. Score:	Alignment	Ş		co .						; GENERA ; APPLI	; Sequen	RESULT 6	В	Ą	₽	Ą	DЬ	ঠ	D	Ş
307 CTTCCCTGTCCGGATCGCCCCCAGCCACAGTCTCCTGTGTATATCTGGACACCTGGGGT 366	309 309	247 ACTGTGACACCGAGCCCATCCCCCACATGACCCCAGATGAAAGTCGAGAGTGTGGTGAGCA 306	309 309	187 GTCCTCATGATCCKCTGTTCTGGCCCAGAGGGAGGTCTGGCCAGGTGGGCTGGGCAGGAC 246	309 309	127 CGGGGCCTGGGGAGCCCTGGGGTCAGACCCCGACTGGCCCGAGGGCAGCTTCCTCACACT 186	309 309	67 TTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAGTAAGTCTACGTGTGCCCAG 126	297 LeuMetProIleThrArgIleAlaPheLy8ValGlnGln 309	7 ATCTCTCTGGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCG 66	277 IleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAla 296	1-838-2 (1-549) x US-10-301-480-118147 (1-1052)	12.7 % 9	Conservative: Mismatches:	: 2.05e-14 Length: 380.00 Matches:	t Scores:	ORGANISM: Homo sapien 10-301-480-118147		FastSEQ for	ING DATE: 2001-08-10 SEO ID NOS: 1226818	FILING DATE: 2002-08-09 APPLICATION NUMBER: US 60/311	ω μ	827.137 NUMBER: US/10/	OF INVENTION: Identifiction and Mapping of Single Nucleotide Polymorphisms OF INVENTION: in the Human Genome		*-10-301-480-118147, Application US/10301480 Publication No. US20060057564A1	; ;	1017 ACGCT	539 ieLeuGluSerSerGlnPheProPro 547	963 CCTCCCTGCAAGCACCCACAGCCTCAGAGAGCAGCAGAGAGCCCCTCACTCCTGC 1016	525 GlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuH 539	903 CCCTCGCAGGGCCCTCCAAGTTACTAGACGAGCCCAGGCCCATTTGTGGGGAGACCCCGCC 962	513 SerhapGlnGlyThrpropheArgAlaArgAapGlu 524		493 TrpGlnAlaGluHisProAlaGluArgValArgSerAlaPheAlaAlaProSerThrAsp 512
, , , ,	 19:		; GEN	; Sec	US-10-	Db	. S) E	\$ \$	ט ט	. ઇ	gg	ঠ	밁	δ	дb	S	Дb	Ş	뫄	S S	В	Ş	Db Db	S	дb	S	DЪ	8	Db	Q	망	S.	Db	ફ
CURKENT FILING DATE: 2002-11-21 PRIOR APPLICATION NUMBER: US 10/215,598 PRIOR FILING DATE: 2002-08-09	REPUBLICATION NUMBER: US/10/301,480	TITLE OF INVENTION: Identifiction and Mapping of Single Nucleotide Polymorphisms TITLE OF INVENTION: in the Human Genome ETT. DESPRESSOR: 108027 117	N. FORMATION: T: Wang, David G.	Sequence 118148, Application US/10301480 Publication No. US20060057564A1	301-		539 isLeuGluSerSerGlnPheProPro	CCICCCIGCAAGCACCCACAGCCICAGAGAGAGCAGCAGCAGCA	GlnProCys-AlaProThrSerGlyProCysLeuCysGlyLeuH	CCCTCGCAGGCCCTCCAAGTTACTAGACGAGCCCAGA	SerAspGlnGlyThrProPheArgAlaArgAspGlu		TrpGlnAlaGluHisProAlaGluArgValArgSerAlaPheAlaAlaProSerThrAsp	837 AGGAGGGGGATGTGGGCAAGA	473 AspPheArgGlnSerCysTrpValArgAlaIleSerGlnGluAspGlnLeuAlaProCys 492	822 ACATGCTGTGCACCC836	453 AsnSerMetProArgLeuProThrAspLeuAspValGluGlyProTrpPheArgHisTyr 472	798 AGGCGCTCAGTGCGT	433 ValProSerProAlaLeuAlaGlnGlyGlyProGlnGlySerTrpArgPheLeuGlnTrp 452	745CTTCTTCCTGGACT-CTAAGAAAGTACAGGAGGCCCACCGGTCCTCAGGGC 797	413 SerThrProCysProGlyGlyAlaValArgGluAspThrTyrProValGlyThrGlnGly 432	700 CCCGCAACCCTACTACCTGGGCCTTCCTCTTCACCTTTTCTTCCT 744	393 ProProAlaArgPheProArgProIleTrpSerAlaSerProProArgAlaProArgSer 412	654CCCATGTCACCCTCTGGGGTAGTCAGTAGTAGGGGAGTGCCCGGGA 699	373 alProAlaSerArgGlyGlyLysThrLeuCysLysGlyAspArgGlnAlaPro-ProGly 392	607 GCAGGGGACCTGCCACCCCCAGGTGGGCTCCAGTGCCATGTCCCCT- 653	353 sGlnGlyAspLeuProProPro-AlaLysProGluGlnGlySerSerAlaSerArgProV 373			487 GAAGACGTCCAGGTGTGGCCCGTGGGCACGTTTTTTGCAACCGGTTCGTTGATACCTGGGC 546	313 riysThrSerArgCysGlyProTrpAlaArgPheCysAsnArgPheValAspThrTrpAl 333	427 GTGACCATTCCCAGGTAACTCCCCTGGCCTGATATCCACCCTGTCCCTAGAGCGCCTCAC 486	310Lys-ArgLeuTh 313	367 GGCCACAAAAGGATCCGGCACCGCCCAGTAGGAGACTGAAGTGGCCACGGGATATGAGCT 426	309 309

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
S
                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; TYPE: DNA
; ORGANISM: Homo sapien
US-10-301-480-118148
                      밁
                                                                     밁
                                                                                         S
                                                                                                             밁
                                                                                                                                     S
                                                                                                                                                                 문
                                                                                                                                                                                  S
                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-071-838-2 (1-549) x US-10-301-480-118148 (1-1052)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US 60/311,69
PRIOR FILING DATE: 2001-08-10
NUMBER OF SEQ ID NOS: 1226818
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 118148
LENGTH: 1052
 413
                       700
                                               393
                                                                      654
                                                                                              373
                                                                                                                     607
                                                                                                                                          353
                                                                                                                                                                  547
                                                                                                                                                                                         333
                                                                                                                                                                                                                 487
                                                                                                                                                                                                                                       313
                                                                                                                                                                                                                                                                427
                                                                                                                                                                                                                                                                                       310
                                                                                                                                                                                                                                                                                                              367
                                                                                                                                                                                                                                                                                                                                     309
                                                                                                                                                                                                                                                                                                                                                             307
                                                                                                                                                                                                                                                                                                                                                                                   309
                                                                                                                                                                                                                                                                                                                                                                                                           247
                                                                                                                                                                                                                                                                                                                                                                                                                                  309
                                                                                                                                                                                                                                                                                                                                                                                                                                                         187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATCTCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAla
SerThrProCysProGlyGlyAlaValArgGluAspThrTyrProValGlyThrGlnGly
                                                                       --CCCATGTCACCCTCTGGGGTAGTCAGTAGTAGGGGA-----GTGCCCGGGA
                                                                                            alProAlaSerArgGlyGlyLysThrLeuCysLysGlyAspArgGlnAlaPro-ProGly
                                                                                                                                    aArgAspGluAspThrValLeuLysHisLeuArgAlaSerMetLysLysLeuThrArgLy
                                                                                                                                                                                                                  GAAGACGTCCAGGTGTGGCCCGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGC
                                                                                                                                                                                                                                rLysThrSerArgCysGlyProTrpAlaArgPheCysAsnArgPheValAspThrTrpAl
                                                                                                                                                                                                                                                                GTGACCATTCCCAGGTAACTCCCCTGGCCTGATATCCACCCTGTCCCTAGAGCGCCTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGGGGCCTGGGGAGCCCTGGGGTCAGACCCCGACTGGCCCGAGGGCAGCTTCCTCACACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAGTAAGTCTACGTGTGCCCAG
                        CCCGCAACCCTACTACCTGGGCCT-----TCCTCTTCACCTTTTCTTCCT
                                             ProProAlaArgPheProArgProIleTrpSerAlaSerProProArgAlaProArgSer
                                                                                                                     GCAGGGGACCTGCCACCCCCAGGTG------GGCTCCAGTGCCATGTCCCCT-
                                                                                                                                                                    CAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAA
                                                                                                                                                                                                                                                                                                               GGCCACAAAAGGATCCGGCACCGCCCAGTAGGAGACTGAAGTGGCCACGGGATATGAGCT
                                                                                                                                                                                                                                                                                                                                                            CTTCCCTGTCCGGATCGCCCCCCCAGCCACAGTCTCCTGTGTATATCTGGACACCTGGGGT
                                                                                                                                                                                                                                                                                                                                                                                                           ACTGTGACACCGAGCCCATCCCCCACATGACCCAGATGAAAGTCGAGAGTGTGGTGAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2.05e-14
380.00
34.7%
32.3%
12.7%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1052
133
10
60
210
                                                                                                                                                                                                                                                                                      Lys-ArgLeuTh
                                                                                                                                                                                                                  546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        186
   432
                                                412
                                                                                                                                             373
                                                                                                                                                                                         353
                                                                                                                                                                                                                                        333
                                                                                                                                                                                                                                                                486
                                                                                                                                                                                                                                                                                                               426
                                                                                                                                                                                                                                                                                                                                                             366
                                                                                                                                                                                                                                                                                                                                                                                                            306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     126
                                                                         699
                                                                                               392
                                                                                                                     653
                                                                                                                                                                    909
                                                                                                                                                                                                                                                                                       313
                                                                                                                                                                                                                                                                                                                                     309
                                                                                                                                                                                                                                                                                                                                                                                    309
                                                                                                                                                                                                                                                                                                                                                                                                                                   309
                                                                                                                                                                                                                                                                                                                                                                                                                                                          246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           296
```

```
APPLICANT: Wang, David G.
TITLE OF INVENTION: Identifiction and Mappin
TITLE OF INVENTION: in the Human Genome
FILE REFERENCE: 108827.137
CURRENT APPLICATION NUMBER: US/10/301,480
CURRENT FILING DATE: 2002-11-21
PRIOR APPLICATION NUMBER: US 10/215,598
PRIOR FILING DATE: 2002-08-09
PRIOR FILING DATE: 2002-08-09
PRIOR FILING DATE: 2002-08-10
NUMBER: OF SEQ ID NOS: 1226818
SOPTWARE: FASESEQ for Windows Version 4.0
SEQ ID NO 731556
LEEGTH: 1052
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 8
US-10-301-480-731556
; Sequence 731556, Application US/10301480
; Publication No. US20060057564A1
; GENERAL INFORMATION:
S
                         밁
                                               δ
                                                                                   밁
                                                                                                              S
                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          र्
                                                                                                                                                                                                                                                                                      ; ORGANISM: Homo sapien US-10-301-480-731556
                                                                                                                                        US-10-071-838-2 (1-549) x US-10-301-480-731556 (1-1052)
                                                                                                                                                                                                                             Score:
                                                                                                                                                                                                                                            Pred. No.:
                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1017 ACGCT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         745
                                                        297
 309
                            67
                                                                                    7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTCCCTGCAAGCACCCACAGCCTCAGAGAGCAGCAGGCCCCCTCACTC-----CTGC 1016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AspPheArgGlnSerCysTrpValArgAlaIleSerGlnGluAspGlnLeuAlaProCys 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValProSerProAlaLeuAlaGlnGlyGlyProGlnGlySerTrpArgPheLeuGlnTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlnProCys--AlaProThrSer-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCTCGCAGGCCCTCCAAGTTACTAGACGAGCCCAGACCCATTTGTGGGAGACCCCGCC 962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TrpGlnAlaGluHisProAlaGluArgValArgSerAlaPheAlaAlaProSerThrAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGCGCTCAGTGCGT-----
                                                  LeuMetProIleThrArgIleAlaPheLysValGlnGln------
                                                                                    SerAspGlnGly-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AsnSerMetProArgLeuProThrAspLeuAspValGluGlyProTrpPheArgHisTyr 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----CTTCTTCCTCGACT-CTAAGAAAGTACAGGAGGCCCACCGGTCCTCAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 isLeuGluSerSerGlnPheProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----AGGAGGGGGATGTGGGCAAGA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACATGCTGTGCACGC----
                             TIGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAGTAAGTCTACGTGTGCCCAG 126
                                                                                                                                                                     2.05e-14
380.00
34.7%
32.3%
12.7%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCTCCAACAAGCCCCCTCCCACTTTCCACGGTGTCTCCCTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ---CCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         and Mapping
Genome
                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        of.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -ThrProPheArgAlaArgAspGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Single Nucleotide Polymorphisms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -GlyProCysLeuCysGlyLeuH
                                                                                                                                                                      1052
133
10
60
210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -GTATACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            797
                                                          309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              836
```

S 밁

밁

```
539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  127
                                                             CTCCCTGCAAGCACCCACAGCCTCAGAGAGCAGCAGCAGGCCCCTCACTC-----CTGC
    isLeuGluSerSerGlnPheProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SerThrProCysProGlyGlyAlaValArgGluAspThrTyrProValGlyThrGlnGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              alProAlaSerArgGlyGlyLysThrLeuCysLysGlyAspArgGlnAlaPro-ProGly
                                                                                         GlnProCys--AlaProThrSer------
                                                                                                                                        CCCTCGCAGGGCCCTCCAAGTTACTAGACGAGCCCAGACCCATTTGTGGGAGACCCCGCC
                                                                                                                                                                                 SerAspGlnGly-----
                                                                                                                                                                                                                                                        TrpGlnAlaGluHisProAlaGluArgValArgSerAlaPheAlaAlaProSerThrAsp
                                                                                                                                                                                                                                                                                                                                   AspPheArgGlnSerCysTrpValArgAlaIleSerGlnGluAspGlnLeuAlaProCys
                                                                                                                                                                                                                                                                                                                                                                                                                 AsnSerMetProArgLeuProThrAspLeuAspValGluGlyProTrpPheArgHisTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ValProSerProAlaLeuAlaGlnGlyGlyProGlnGlySerTrpArgPheLeuGlnTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCGCAACCCTACTACCTCGGCCT-----TCCTCTTCACCTTTTCTTCCT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProProAlaArgPheProArgProIleTrpSerAlaSerProProArgAlaProArgSer 412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                --CCCATGTCACCCTCTGGGGTAGTCAGTAGTAGGGGA-----GTGCCCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sGlnGlyAspLeuProProPro-AlaLysProGluGlnGlySerSerAlaSerArgProV 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             aArgAspGluAspThrValLeuLysHisLeuArgAlaSerMetLysLysLeuThrArgLy 353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rLysThrSerArgCysGlyProTrpAlaArgPheCysAsnArgPheValAspThrTrpAl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGACCATTCCCAGGTAACTCCCCTGGCCTGATATCCACCCTGTCCCTAGAGCGCCTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCCTCATGATCCKCTGTTCTGGCCCAGAGGGAGGTCTGGCCAGGTGGGCTGGGCAGGAC
                                                                                                                                                                                                                                                                                                                                                                                ACATGCTGCACGC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCCACAAAAGGATCCGGCACCGCCCAGTAGGAGACTGAAGTGGCCACGGGATATGAGCT 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCCCTGTCCGGATCGCCCCCCAGCCACAGTCTCCTGTGTATATCTGGACACCTGGGGT 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTGTGACACCGAGCCCATCCCCCACATGACCCAGATGAAAGTCGAGAGTGTGGTGAGCA 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGGGGCCTGGGGAGCCCTGGGGTCAGACCCCGACTGGCCCGAGGGCAGCTTCCTCACACT
                                                                                                                                                                                                                                                                                                 - AGGAGGGGGATGTGGGCAAGA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTCTTCCTCCTGGACT-CTAAGAAAGTACAGGAGGCCCACCGGTCCTCAGGGC
                                                                                                                                                                                                                   - CCCTCCAACAAGCCCCCTCCCACTTTCCACGGTGTCTCCCCTCTCC
                                                                                                                                                                             -----ThrProPheArgAlaArgAspGlu
                                                                                                   -GlyProCysLeuCysGlyLeuH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCTCCAGTGCCATGTCCCCT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ------GTATACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ---Lys-ArgLeuTh 313
                                                               1016
                                                                                                                                                                                                                                                                                                                                       492
                                                                                                                                                                                                                                                                                                                                                                                                                     472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               486
                                                                                                                                                                               524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    546
                                                                                                                                                                                                                                                                                                                                                                              836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                744
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Wang, David G.

APPLICANT: Wang, David G.

TITLE OF INVENTION: Identifiction and Mappin

TITLE OF INVENTION: in the Human Genome

FILE REFERENCE: 10827.137

CURRENT APPLICATION NUMBER: US/10/301,480

CURRENT FILING DATE: 2002-11-21

PRIOR APPLICATION NUMBER: US 10/215,598

PRIOR FILING DATE: 2002-08-09

PRIOR APPLICATION NUMBER: US 60/311,695

PRIOR APPLICATION NUMBER: US 60/311,695

PRIOR APPLICATION NUMBER: US 60/311,695

PRIOR FILING DATE: 2001-08-10

NUMBER OF SEQ ID NOS: 1226818

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 731557

LENGTH: 1052

TYPE: DNA

ORGANISM: Homo sapien
                      S
                                                             밁
                                                                                           ঠ
                                                                                                                                        밁
                                                                                                                                                                    Ś
                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                          片
                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-071-838-2 (1-549)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 9
US-10-301-480-731557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 731557, Application US/10301480 Publication No. US20060057564A1 GENERAL INFORMATION:
                        333
                                                             487
                                                                                                                                        427
                                                                                                                                                                                                                                                          309
                                                                                                                                                                                                                                                                                               307
                                                                                                                                                                                                                                                                                                                                                                                                                   309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1017 ACGCT--
                                                                                                                                                                                                                                                                                                                                                                                                                                                       187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7
aArgAapGluAapThrValLeuLysHisLeuArgAlaSerMetLysLysLeuThrArgLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAla
                                                                                       rLysThrSerArgCysGlyProTrpAlaArgPheCysAsnArgPheValAspThrTrpAl 333
                                                                                                                                        GTGACCATTCCCAGGTAACTCCCCTGGCCTGATATCCACCCTGTCCCTAGAGCGCCTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAGTAAGTCTACGTGTGCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuMetProIleThrArgIleAlaPheLysValGlnGln---------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCTCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCG
                                                                                                                                                                                                                   GGCCACAAAAGGATCCGGCACCGCCCAGTAGGAGACTGAAGTGGCCACGGGATATGAGCT
                                                                                                                                                                                                                                                                                             CTTCCCTGTCCGGATCGCCCCCCAGCCACAGTCTCCTGTGTATATCTGGACACCTGGGGT 366
                                                                                                                                                                                                                                                                                                                                                                        ACTGTGACACCGAGCCCATCCCCCACATGACCCAGATGAAAGTCGAGAGTGTGGTGAGCA 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGGGGCCTGGGGAGCCCTGGGGTCAGACCCCGACTGGCCCGAGGGCAGCTTCCTCACACT 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         x US-10-301-480-731557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2.05e-14
380.00
34.7%
32.3%
12.7%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -CCTCCA 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and Mapping
Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (1-1052)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   of Single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1052
133
10
60
210
                                                                                                                                                                             ----Lys-ArgLeuTh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nucleotide Polymorphisms
```

126

309 66

309

S 밁 S

밁

ঠ

밁 δ 밁 ક 유 S ঠ

밁

ঠ

밁 ર્ 밁 ð 밁 δ

밁

문

S 밁 S 밁 δ 밁 ð 8 ð 밁 S

546

486 313 426 309

309

309

```
Sequence 55408, Application US/0992505A

Sequence 55408, Application US/0992505A

Publication No. US20040181048A1

GENERAL INFORMATION:

APPLICANT: Wang, David G.

TITLE OP INVENTION: Identification and Mapping of TITLE OP INVENTION: Nucleotide Polymorphisms in t FILE REFERENCE: 108827.115

CURRENT PILLING DATE: 2001-08-08

PRIOR APPLICATION NUMBER: US 60/243,096

PRIOR APPLICATION NUMBER: US 60/252,147

PRIOR APPLICATION NUMBER: US 60/252,147

PRIOR FILING DATE: 2000-11-20

PRIOR APPLICATION NUMBER: US 60/250,092

PRIOR APPLICATION NUMBER: US 60/261,766

PRIOR APPLICATION NUMBER: US 60/289,846

PRIOR FILING DATE: 2001-01-16

PRIOR FILING DATE: 2001-05-09

NUMBER OF SEQ ID NOS: 957086

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 55408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                              RESULT 10
US-09-925-065A-55408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   გ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
ORGANISM: Homo sapiens
              TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                         1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               353
                                                                                                                                                                                                                                                                                                                                                                                                                                                       539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                alProAlaSerArgGlyGlyLysThrLeuCysLysGlyAspArgGlnAlaPro-ProGly 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SerThrProCysProGlyGlyAlaValArgGluAspThrTyrProValGlyThrGlnGly 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTCCCTGCAAGCACCCACAGCCTCAGAGAGCAGCAGAGGCCCCTCACTC-----CTGC 1016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlnProCys--AlaProThrSer------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SerAspGlnGly----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACATGCTGTGCAĊĠĊ-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCGCTCAGTGCGT--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ValProSerProAlaLeuAlaGlnGlyGlyProGlnGlySerTrpArgPheLeuGlnTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCGCAACCCTACTACCTGGGCCT-----TCCTCTTCACCTTTTCTTCCT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProProAlaArgPheProArgProIleTrpSerAlaSerProProArgAlaProArgSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -- CCCATGTCACCCTCTGGGGTAGTCAGTAGTAGGGGGA-----GTGCCCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCTCGCAGGGCCCTCCAAGTTACTAGACGAGCCCAGACCCATTTGTGGGAGACCCCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TrpGlnAlaGluHisProAlaGluArgValArgSerAlaPheAlaAlaProSerThrAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ----AGGAGGGGATGTGGGCAAGA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AspPheArgGlnSerCysTrpValArgAlaIleSerGlnGluAspGlnLeuAlaProCys 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AsnSerMetProArgLeuProThrAspLeuAspValGluGlyProTrpPheArgHisTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----CCTCTTCCTCCTGGACT-CTAAGAAAGTACAGGAGGCCCACCGGTCCTCAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       isLeuGluSerSerGlnPheProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCTCCAACAAGCCCCCTCCCACTTTCCACGGTGTCTCCCTCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                           CCTCCA 1027
                                                                                                                                                                                                                                                                                                                                                                                                                                                       547
                                                                                                                                                                                                                                                                                    ng of Single
in the Huma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -ThrProPheArgAlaArgAspGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -GGCTCCAGTGCCATGTCCCCT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyproCysLeuCysGlyLeuH
                                                                                                                                                                                                                                                                                        Human Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -GTATACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                      Ś
                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
 S
                             밁
                                                                                          밁
                                                                                                                S
                                                                                                                                              밁
                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                    ş
                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-10-071-838-2 (1-549) x US-09-925-065A-55408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-925-065A-55408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               133
                                                                                                                                                                                                                                               309
                                                                                                                                                                                                                                                                         612
                                                                                                                                                                                                                                                                                                                                     552
                                                                                                                                                                                                                                                                                                                                                                                                492
                                                                                                                                                                                                                                                                                                                                                                                                                             309
                                                                                                                                                                                                                                                                                                                                                                                                                                                          432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   193 CTCAGGCGACCCTCATGGGGAAGGAAGGTCACTGACTCAGGAGACTG-AAGCCCCCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   222 GlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGluHis
                                                             331
                                                                                            792
                                                                                                                        311
                                                                                                                                                      732
                                                                                                                                                                                                                 672
                                                                                                                                                                                                                                                                                                                                                                   309
   351 rArgLysGlnGlyAspLeuProProPro-AlaLysProGluGlnGlySerSerAlaSerA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AspGlyIleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGlu 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGCCCTGGGCAAGCCCCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSerLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlnAlaLeuMetProIleThrArgIleAlaPheLy8ValGln-Gln-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAAATGAGTGCCTCCCATGAGGAGCTTCAAGACCTTGTCTGACCCAGCGTCCTGGAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGCCTCATGGGCAGACTGGGCCAGGACCCGACTTGAGAGGGCTCAG---GGAAGCCTC
                                                                                                             gLeuThrLysThrSerArgCysGlyProTrpAlaArgPheCysAsnArgPheValAspTh
                                                                                                                                                                                                                                                                                                                                     CAGGACACTGTGACACCGAGCCCATYCCCCACATGACCCCAGATGAAAGTCGAGAGTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCACAGATCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCGCAGCTCGAGCCACCAGCCCAGCCTGGAAGGACCAGGTTCTTTCACACCTGCTGTCC
                                                      rTrpAlaArgAspGluAspThrValLeuLysHisLeuArgAlaSerMetLysLysLeuTh
                                                                                                                                                                                                                                                                           TGAGCACTTCCCTGTCCAGATCACCCCCCAGCCACAGTCTCCTGTGTATATCTGGACGCC
                                                                                                                                                                                                                                                                                                                                                                                               CCTCACGAAGACGTCCAGGTGTGGCCCGTGGGCACGTTTTTGGAACCGGTTCGTTGATGC
                                                                                                                                                      TGAGCTGTGACCATTCCCAGGTAACTCCCCTGGCCTGATATCCACCCTGTCCCTAGAGCG
                                                                                                                                                                                                                 TGGGGTGGCCACAAAAGGATCCGGCACCGCCCAGTGGGAGACTGAAGTGGCCACGGGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCCAGCGGGGCCTGGGGAGCCCTGGGGTCAGACCCCGACTGGCCCGAGGGCAGCTTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGTAGAGTAAGTCTACGTGT 431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.53e-13
367.00
32.9%
28.5%
12.3%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ---------valvalAlaThrSerGlnPro-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (1-1294)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCCAGGAGCCACATCCCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1294
143
22
86
252
16
                                                                                                                                                                                   -- Lуваг 311
                                                                                                                                                                                                                                                                                                                                                                                                  551
                                                                                                                                                                                                                                                                                                                                                                                                                                                             491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   221
                                   911
                                                                351
                                                                                               851
                                                                                                                           331
                                                                                                                                                         791
                                                                                                                                                                                                                    731
                                                                                                                                                                                                                                                309
                                                                                                                                                                                                                                                                              671
                                                                                                                                                                                                                                                                                                          309
                                                                                                                                                                                                                                                                                                                                          611
                                                                                                                                                                                                                                                                                                                                                                                                                                 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                248
```

SEQ ID NO 55409 SEQ ID NO 55409 LENGTH: 1294 TYPE: DNA ORANIAM: Homo sapiens US-09-925-065A-55409 Alignment Scores: Pred. No.: Score: Pred. No.: 1.53e-13 Matches: 143 Percent Similarity: 32.9\$ Best Local Similarity: 28.5\$ Mismatches: 86	RIOR APPLICATION UNMER: US 6 RIOR APPLICATION UNMER: US 6 RIOR FILING DATE: 2000-11-20 RIOR APPLICATION NUMBER: US 6 RIOR FILING DATE: 2000-11-30 RIOR FILING DATE: 2000-01-16 RIOR APPLICATION NUMBER: US 6 RIOR FILING DATE: 2001-05-09 RIOR FILING DATE: 2001-05-09 RIOR FILING DATE: 2001-05-09	RESULT 11 US-09-925-065A-55409 Sequence 55409, Application US/09925065A Publication No. US20040181048A1 GENERAL INFORMATION: GENERAL INFORMATION: TITLE OF INVENTION: Identification and Mapping of Single TITLE OF INVENTION: Nucleotide Polymorphisms in the Human Genome FILE REFERENCE: 108827.135 CURRENT APPLICATION NUMBER: US/09/925,065A CURRENT FILING DATE: 2001-08-08 PRIOR APPLICATION NUMBER: US 60/243,096	51 117 53		Db 912 AAGAAAGCAGGGGGACCTGCCACCCCCAGGTG
Qy 331 rTrpAlaArgAspGluAspThrValLeuLysHisLeuLysHisleuLysLysLysLysLeuTh 351	Db 672 TGGGTTGCCACAAAAGGATCCGGCACCGCCCAGTGGGAGACTGAAGTGGCCACGGGGTA 731 Qy 310	492 CACACTGTCCTCATGATCCTCTGTTCTGGCCCAGAGGGAGG	Cy 295 GIRALBLEUMSE PROLIET TRANSPILEA, APPRELLY SVALIGIT GLT	193 CTCAGGCGACCCTCATGGGGAAGGAAGGTCACTGACTCAGGAGACTG-AAGCCCCAGTGT 261 GlyGlnCy8SerProLeuGly	Query Match: 12.3% Indels: 252 DB: 6 Gaps: 16 US-10-071-838-2 (1-549) x US-09-925-065A-55409 (1-1294) Qy 202 ProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSerLeu 221

ר זירראממאימררערעז רירירער	, 2 , 2	Db 34 CCAGCCTCATGGGCAGACTGGGCCAGGACCCGACTTGAGAGGGGCTCAGGGAAGCCTC 90	Qy 202 ProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSerLeu 221	US-10-071-838-2 (1-549) x US-10-301-480-156646 (1-1294)	12.3% Indels: 9 Gaps:	ocal cimilarity:	No.: 1.53e-13 Length:	ÚS-10-301-480-156646	TYPE: DNA ORGANISM: Homo sapien	: FastSEQ for 156646	1-08-10		CURRENT FILING DATE: 2002-11-21 CURRENT FILING DATE: 2002-11-21	; FILE REFERENCE: 108827.137	; APPLICANT: Wang, David G. ; TITLE OF INTERIOR: Identification and Mapping of Single Nucleotide Polymorphisms	GENERAL INFORMATION:	US-10-301-480-156646 ; Sequence 156646, Application US/10301480	RESULT 12	Db 1187CCCACTTTCTGCGGTGTCTCCCTCTCGCCAGGGGCCCTCCAAGTTAC 1237	HisLeuGluSerSerGlnPheProProGly	Db 1175 1186	Oy 511 ThrAspSerAspGlnGlyThrProPheArgAlaArgAspGluGlnProCysAlaProThr 530	Db 1169CCCTCC 1174	Qy 491 ProCysTrpGlnAlaGluHisProAlaGluArgValArgSerAlaPheAlaAlaProSer 510	1148	Oy 471 HisTyrAspPheArgGlnSerCysTrpValArgAlaIleSerGlnGluAspGlnLeuAla 490	Db 1127 TACTGGACATGCTGTGCACGC1147	Qy 451 GlnTrpAsnSerMetProArgLeuProThrAspLeuAspValGluGlyProTrpPheArg 470	Db 1103 CAGGGCAGGCGCTCAGTGCGT	Oy 431 GlnGlyValProSerProAlaLeuAlaGlnGlyGlyProGlnGlySerTrpArgPheLeu 450	1056CCTCTTCCTCCTGGACT-CTAAGAAAGTACAGGAGGCCCACCGGTCCT	411 ArgSerSerThrProCysProGlyGlyAlaValArgGl	Qy 391 ProGlyProProAlaArgPheProArgProIleTrpSerAlaSerProProArgAlaPro 410
Ş	da da	Ş	B &	ş ¦	문 &	문	δ	문	9	문 &	рь	Q	рb	Ş	망	8	дb	Ş	망	Ş	Дb	Ą	당	Q	DЬ	Ş	рb	Q	Db	Ş	Db i	Q	B 6
451 GlnTrpAsnSerMetProArgLeuProThrAspLeuAspValGluGlyProTrpPheArg 470		GlnGlyValPro		ArgSerSerThrProCvsProGlvGlvAlaValArgGluAspThrTvrProValGlyThr	391 ProGlyProProAlaArgPheProArgProIleTrpSerAlaSerProProArgAlaPro 410		371 rgProValProAlaSerArgClyGlyLysThrLeuCysLysGlyAspArgGlnAlaPro- 390	912 AAGAAAGCAGGGGACCTGCCACCCCCAGGTGGCCTCCAGTGCCATGT 959	rArgLysGlnGlyAspLeuProProPro-AlaLysProGluGlnGlySerSerAlaSerA	331 rTrpalaargaspGluaspThrValLeuLysHisLeuArgAlaSerMetLysLysLeuTh 351 	792 CTTCACGAAGACGTCCAGGTGTGGCCCCGTGGGCACGTTTTTTGGAACCGGTTCGTTGATGC 851	311 gLeuThrLysThrSerArgCysGlyProTrpAlaArgPheCysAsnArgPheVslAspTh 331	732 TGAGCTGTGACCATTCCCAGGTAACTCCCCTGGCCTGATATCCACCCTGTCCCTAGAGCG 791	310LygAr 311	672 TGGGGTGGCCACAAAAGGATCCGGCACCGCCCAGTGGGAGACTGAAGTGGCCACGGGGTA 731	309 309	612 TGAGCACTTCCCTGTCCAGATCACCCCCCAGCCACAGTCTCCTGTGTATATCTGGACGCC 671	309 309	552 CAGGACACTGTGACACCGAGCCCATYCCCCCACATGACCCCAGATGAAAGTCGAGAGTGTGG 611	309 309	492 CACACTGTCCTCATGATCCTCTGTTCTGGCCCAGAGGGAGG	309 309	432 GCCCAGCGGGGCCTGGGGAGCCCTGGGGTCAGACCCCGACTGGCCCGAGGGCAGCTTCCT 491	309 309	372 CAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGTAGAGTAAGTCTACGTGT 431	295 GlnAlaLeuMetProIleThrArgIleAlaPheLysValGln-Gln 309	312 CCACAGATCTCTCGGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAA 371	275 AspGlyIleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGlu 294	252 GCGCAGCTCGAGCCAGCCCCAGCCTGGAAGGACCAGGTTCTTTCACACCTGCTGTCC 311	261 GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIle 274	CTCAGGCGACCCTCATGGGGAAG	249	242 248 A

			Qy 242 248 Ob 133 TCAAATGAGTGCCTCCCATGAGGAGCTTCAAGACCTTGTCTGACCCAGCGTCCTGGAGGG 192	Qy 222 GlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGluHis 241 ::: :: ::: ::: ::: Db 91 AAGCCCTGGGCAAGCCCCTCTCTCCAGGAGCCACTCCCCAC 132	roGluGluAspAlaPheTrpAlaLeuValGln 	12.3% Indels: 9 Gaps: 9-2 (1-549) x US-10-301-480-156647 (1-129:	No.:	; ORGANISM: Homo sapien US-10-301-480-156647 Alignment Scores:	; SOPTWARE: FastSEQ for Windows Version 4.0 ; SEQ ID NO 156647 ; LENGTH: 1294 ; TYPE: DNA	; PRIOR FILING DATE: 2002-08-09 ; PRIOR APPLICATION NUMBER: US 60/311,695 ; PRIOR FILING DATE: 2001-08-10 ; NUMBER OF SEQ ID NOS: 1226818	Z Z	; TITLE OF INVENTION: Identifiction and Mapping of Single Nucleotide Polymorphisms; TITLE OF INVENTION: in the Human Genome; FILE REFERENCE: 108827, 17	; GENERAL INFORMATION: ; GENERAL INFORMATION: ; APPLICANT: Wang, David G.	US-10-301-480-156647 ; Sequence 156647, Application US/10301480 ; Bublication US/10301480	1187CCCACTTTCTGCGGTGTCTCCCTCTCGCAGGGCCCTCCAAGTT	531 SerGly		Qy 511 ThrAspSerAspGlnGlyThrProPheArgAlaArgAspGluGlnProCysAlaProThr 530	Db 1169CCCTCC 1174	Qy 491 ProCysTrpGlnAlaGluHisProAlaGluArgValArgSerAlaPheAlaAlaProSer 510	Db 1148AGGAGGGGGATGTGGGCGAGA 1168	1127
70	B 8	B &	B &	පි ර	D Qy	B 8	g Q	B &	Qy dd	dy Qy	D 5	Ş B	Q	D S	дb	Q	οb	Ş	дb	Q	유 성	Db
511 ThrAspSerAspGlnGlyThrProPheArgAlaArgAspGluGlnProCysAlaProThr 530	491 ProCysTrpGlnAlaGluHisProAlaGluArgValArgSerAlaPheAlaAlaProSer 510	471 HisTyrAspPheArgGlnSerCysTrpValArgAlaIleSerGlnGluAspGlnLeuAla 490	451 GlnTrpAsnSerMetProArgLeuProThrAspLeuAspValGluGlyProTrpPheArg 470	431 GlnGlyValProSerProAlaLeuAlaGlnGlyGlyProGlnGlySerTrpArgPheLeu 450	411 ArgSerSerThrProCysProGlyGlyAlaValArgGluAspThrTyrProValGlyThr 430	391 ProGlyProProAlaArgPheProArgProIleTrpSerAlaSerProProArgAlaPro 410	371 rgProValProAlaSerArgGlyGlyLysThrLeuCysLysGlyAspArgGlnAlaPro- 390	351 rArgiysGlnGlyAspLeuProProPro-AlaLysProGluGlnGlySerSerAlaSerA 371	331 rTrpAlaArgAspGluAspThrValLeuLysHisLeuArgAlaSerMetLysLysLeuTh 351 	311 gLeuThrLyeThrSerArgCysGlyProTrpAlaArgPheCysAsnArgPheValAspTh 331	732 TGAGCTGTGACCATTCCCAGGTAACTCCCCTGGCCTGATATCCACCCTGTCCCTAGAGCG 791		309 309	612 TGAGCACTTCCCTGTCCAGATCRCCCCCCAGCCACAGTCTCCTGTATATCTGGACGCC 671	552 CAGGACACTGTGACACCGAGCCCATTCCCCCACATGACCCCAGATGAAAGTCGAGAGTGTGG 611	309 309	492 CACACTGTCCTCATGATCCTCTGTTCTGGCCCAGAGGGAGG	309 309	432 GCCCAGCGGGGCCTGGGGAGCCCTGGGGTCAGACCCCGACTGGCCCGAGGGCAGCTTCCT 491	309 309	295 GlnAlaLeuMetProtleThrArgIleAlaPheLysValGln-Gln	

	312 CCACAGATCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAA 37 312 CCACAGATCTCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAA 37 295 GlnAlaLeumetProIleThrArgIleAlaPheLysValGln-Gln	261 252 275	Db 133 TCAAATGAGTGCCTCCCATGAGGAGCTTCAAGACCTTGTCTGACCCAGCGTCCTGGAGGG 192 Qy 249LysThrMetGlyHisGlnAspLysAspLeuCys 260	Qy 222 GlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGluHis 241 :::: :::	AspAlaPheTrpAlaLeuValGln 	milarity: Similarity: h:	; SOFTMARE: FastSEQ for Windows Version 4.0 ; SEQ ID NO 770055 ; LENGTH: 1294 ; TYPE: DNA ; ORGANISM: Homo sapien US-10-301-480-770055 Alignment Scores:	NUMBER: US 10/215,59 : 2002-08-09 NUMBER: US 60/311,69 : 2001-08-10 NOS: 1226818		4 1-480-770055 1-480-770055, Application US/10301480 ation No. US20060057564A1 L INFORMATION: CANT: Wang, David G.	Qy 531 SerGlyProCyBLeuCyBGlyLeuHiBLeuGluSerSerGlnPheProProGlyPhe 549	Db 1175 1186
RESULT 15 US-10-301-480-770056 US-10-301-480-770056; Application US/10301480 ; Sequence 770056, Application US/10301480 ; Publication No. US20060057564A1 ; GENERAL INFORMATION: ; APPLICANT: Wang, David G. ; TITLE OF INVENTION: Identifiction and Mapping of Single Nucleotide Polymorphisms	Db 1175 1186 Qy 531 SerGlyProCysLeuCysGlyLeuHisLeuGluSerSerGlnPheProProGlyPhe 549	AlaproThr	471 HisTyrAspPheArgGlnSerCysTrpValArgAlaIleSerGlnGluAspGlnLeuAla	Db 1103 CAGGGCAGGCCTCAGTGCGT	Qy 411 ArgSerSerThrProCysProGlyGlyAlaValArgGluAspThrTyrProValGlyThr 430	Qy 371 rgProValProAlaSerArgGlyGlyLy8ThrLeuCy8Ly8GlyAspArgGlnAlaPro- 390		311 792	Oy 310	309 612 309	QY 309 309 Db 552 CAGGACACTGTGACACCGAGCCCCATYCCCCCACATGACCCCAGATGAAAGTCGAGAGTGTGG 611	CACACTGTCCTCATGATCCTCTGTTCTGGCCCAGAGGGAGG

```
; TITLE OF INVENTION: in the Human Genome
; FILE REFERENCE: 108827.137
; CURRENT APPLICATION NUMBER: US/10/301,480
; CURRENT FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 10/215,598
; PRIOR FILING DATE: 2002-08-09
; PRIOR PILING DATE: 2001-08-10
; PRIOR FILING DATE: 2001-08-10
; NUMBER OF SEQ ID NOS: 1226818
; SOFTWARE: FASTESQ for Windows Version 4.0
; SEQ ID NO 770056
; ENGTH: 1294
   밁
                        र्
                                                           밁
                                                                                    S
                                                                                                                        밁
                                                                                                                                             ð
                                                                                                                                                                                 밁
                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                   망
                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; TYPE: DNA
; ORGANISM: Homo sapien
US-10-301-480-770056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-071-838-2 (1-549) x US-10-301-480-770056 (1-1294)
672 TGGGGTGGCCACAAAAGGATCCGGCACCGCCCAGTGGGAGACTGAAGTGGCCACGGGGTA 731
                                                                                                                                                                                                                                                432
                                                                                                                                                                                                                                                                                                                                                                       312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            202 ProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSerLeu 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  34
                                                                                                                                                                                                                                                                                                                           CCACAGATCTCTCTCGGGCTCACCCTGCGCCCTGTGGGACGTGTATCTGGTAGAAGGCGAA 371
                                                           TGAGCACTTCCCTGTCCAGATCRCCCCCCAGCCACAGTCTCCTGTGTATATCTGGACGCC
                                                                                                                     CAGGACACTGTGACACCGAGCCCATTCCCCACATGACCCAGATGAAAGTCGAGAGTGTGG 611
                                                                                                                                                                                 GCCCAGCGGGGCCTGGGGAGCCCTGGGGTCAGACCCCGACTGGCCCGAGGGGCAGCTTCCT 491
                                                                                                                                                                                                                                                                                                        CAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGTAGAGTAAGTCTACGTGT 431
                                                                                                                                                                                                                                                                                                                                                                                       AspGlyIleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGlu 294
                                                                                                                                                                                                                                                                                                                                                                                                                                GCGCAGCTCGAGCCAGCCCCAGCCTGGAAGGACCAGGTTCTTTCACACCTGCTGTCC 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyGlnCysSerProLeuGly-------CysLeuIleArgIleLeuIle 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCAGGCGACCCTCATGGGGAAGGAAGGTCACTGACTCAGGAGACTG-AAGCCCCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCAAATGAGTGCCTCCCATGAGGAGCTTCAAGACCTTGTCTGACCCAGCGTCCTGGAGGG 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnHis 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCAGCCTCATGGGCAGACTGGGCCAGGACCCGACTTGAGAGGGGCTCAG---GGAAGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.53e-13
367.00
32.9%
28.5%
12.3%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ------ValValAlaThrSerGlnPro-----
                                                           671
                                                                                                                                                     309
                            309
                                                                                                                                                                                                                                                                                                                                       309
                                                                                                                                                                                                                                                                           309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90
```

Search completed: April Job time : 554 secs 5, 2006, 15:11:30

This Page Blank (USONG)

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Command line parameters:

-MODEL-frame+ parameters:
-Q=/abss/ABSSWEB spool/US10071838/runat 05042006 141920 5288/app query.fasta 1-Q=/abss/ABSSWEB spool/US10071838/runat 05042006 141920 5288/app query.fasta 1-DB=Published Applications NA Main -QFMT=fastap -SUFFIX=rupbm -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0 -UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45 -DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000 -HOST=abs807
                                                                                                                                                                                                                                                                                                                                                                                                                                             Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Post-processing: Minimum Match 0%
Maximum Match 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -USER=US10071838 @CGN 1 1 1026 @runat 05042006 141920 5288 -NCPU=6 -ICPU=3
-NO MMAP -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV_TIMEOUT=120
-WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YGAPOP=10
                                                                                                                                                                                                                              Pred. No. score grea
   2983
2978
2907.5
2850
2827
2827
2827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멂
                                                                                                                                 Score
                                                                                                                                                                                                                18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       seq
                                                                                                                                                                                                          No. is the number of results predicted by chance to have greater than or equal to the score of the result being parties of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                           Published_Applications_NA_Main:*

1: /cgn2_6/ptodata/1/pubpna/US07_2: /cgn2_6/ptodata/1/pubpna/US09A_3: /cgn2_6/ptodata/1/pubpna/US09A_4: /cgn2_6/ptodata/1/pubpna/US10A_6: /cgn2_6/ptodata/1/pubpna/US10A_6: /cgn2_6/ptodata/1/pubpna/US10B_7: /cgn2_6/ptodata/1/pubpna/US10B_8: /cgn2_6/ptodata/1/pubpna/US10B_9: /cgn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length: 0 length: 2000000000
   100.0
99.8
97.5
95.5
94.8
94.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xgapop 10.0 ygapop 10.0 Fgapop 6.0 Delop 6.0
                                                                                                                               Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BLOSUM62
                                                                                                                                                  Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9793542 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   April 5, 2006, 14:54:53; Search time 1234 Seconds
(without alignments)
3679.002 Million cell up
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-071-838-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Listing
                                                                                                                                                                                                                                                                          /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10E_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10E_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10E_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MDVVEVAGSWWAQEREDIIM....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GenCore version 5.1.7
Copyright (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                                               Length
   1964
1993
2146
2084
2072
2072
1752
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Match 100%
first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . . . .
                                                                                                                                 BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xgapext
Ygapext
Fgapext
Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4134689005 residues
 US-10-071-838-1

US-10-839-882-31 `

US-10-071-838-3

US-10-302-172-692

US-10-302-172-691

US-10-108-260A-676

US-10-094-466-61
   -10-108-260A-676
-10-094-466-61
                                                                                                                                                                                SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . . . . . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .....TSGPCLCGLHLESSQFPPGF 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19587084
               Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                              Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cell updates/sec
   Sequence
                                                                                                                                                                                                                              printed,
 1, Appli
31, Appl
3, Appli
692, App
691, App
676, App
61, Appl
                                                                                                                                                                                         APPLICANT: Powers, Scott
APPLICANT: Xiang, Phil
APPLICANT: Xiang, Phil
APPLICANT: Yularik Inc.
TITLE OF INVENTION: PRC17: An Amplified Can
FILE REFERENCE: 018781-007610VS
CURRENT APPLICATION NUMBER: US/10/071,838
CURRENT FILING DATE: 2002-05-07
PRIOR APPLICATION NUMBER: US 60/267,615
PRIOR APPLICATION NUMBER: US 60/267,615
PRIOR PILING DATE: 2001-02-08
NUMBER OF SEQ ID NOS: 18
SOPTWARE: Patentin Ver. 2.1
SEQ ID NO 1
Alignment Scores: Pred. No.:
                                                  US-10-071-838-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-071-838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                       Sequence 7, Application US/10071838
Publication No. US20030044814A1
GEMERAL INFORMATION:
APPLICANT: L1, Jing
APPLICANT: Powers, Scott
                                                                               FEATURE:
OTHER INFORMATION: human
FEATURE:
NAME/KEY: CDS
                                                                                                                                           ORGANISM: Homo sapiens
                                                                                                                                                               TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LOCATION:
                                                                                                                                                                             LENGTH: 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1469
1469
1469
1469
1465
1465
1465
1465
1428.5
1428.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2773
2191.5
2191.5
2191.5
2191.5
2191.5
2133.5
2133.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1500.5
1500.5
1500.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1795
1795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2133.
2133.
2133.
2133.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1507.5
1500.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1732
1533.5
1507.5
1507.5
1507.5
                                                                 (1) .. (1650)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2.19e-265
                                                                                                                                                                                                                                                                                                                          An Amplified Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-843-641A-3021
US-10-956-157-1259
US-10-956-157-1259
US-10-283-975A-272
US-10-278-698-640
US-10-278-698-133
US-10-098-841-51
US-10-098-841-51
US-10-450-763-2133
US-10-450-763-2133
US-10-450-763-23326
US-10-450-763-23326
US-10-450-763-23326
US-10-450-763-23326
US-10-450-763-23326
US-10-450-763-23326
US-10-450-763-23326
US-10-450-763-23326
US-10-9764-891-7857
US-09-764-891-7859
US-10-97-64-891-7859
US-10-97-64-891-7861
US-10-97-64-891-7861
US-10-97-64-891-7863
US-10-97-64-891-7863
US-10-97-64-891-7863
US-10-97-64-891-7855
US-09-764-891-7855
US-09-764-891-7855
US-10-091-504-1825
US-10-27-577-1825
US-09-764-891-7855
US-10-27-577-1825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-071-838-5
US-10-450-763-21335
US-10-450-763-24017
US-09-962-436-562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALIGNMENTS
Length:
   1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5, Appli
21335, A
24017, A
562, App
3021, Ap
1259, Ap
1259, Ap
272, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21338, A
19813, A
222833, A
23327, A
78524, Ap
1824, Ap
1824, Ap
1824, Ap
1826, Ap
1829, Ap
1829, Ap
1829, Ap
1825, Ap
1825, Ap
1825, Ap
1825, Ap
1825, Ap
1821, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1825,
7858,
1825,
1825,
1825,
1821,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             640, App
1037, Ap
21339, A
51, Appl
50, Appl
```

440

1260

420 1200

1320

460

400

1140

1080 360 1020

```
S
                                   맑
                                                         ठ
                                                                                           밁
                                                                                                                  Ş
                                                                                                                                           밁
                                                                                                                                                                      S
                                                                                                                                                                                                      밁
                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                         श्च
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score:
Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-071-838-2
                                                            301
                                    901
                                                                                            841
                                                                                                                     281
                                                                                                                                                                             261
                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                      481
          321
                                                                                                                                                 781
                                                                                                                                                                                                         721
                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                          221
                                                                                                                                                                                                                                                                                                                                                  201
                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21
                                                                                                           LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle 300
                                                                                                                                                                 GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                   ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                                                                                                                                                                                                        HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                                                                                             AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr 200
                                                                                                                                                                                                                                                                                                                                                                                                                                     GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100
        TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu
                                                                                                                                                 CATGTGGTAGCCACGTCACAACCCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                                                                                                                                                                 CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                 LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGln
                                                                                                                                                                                                                                                                                                                        CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                      LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                               AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCTACAACAACGTCGATCATTTGGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ANATACGANAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (1-549) x US-10-071-838-1 (1-1964)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2983.00
100.0%
100.0%
100.0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               000049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  40
          340
                                                                                            900
                                                                                                                                                 840
                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                  220
                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20
                                      960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
Sequence 31, Application US/10839882

; Publication No. US20040203106A1

; General INFORMATION:
APPLICANT: INCYTE PHARMACEUTICALS, INC.
APPLICANT: TANG, Y. Tom
APPLICANT: YUB, Henry
APPLICANT: HILLMAN, Jennifer L.
APPLICANT: GUEGLER, Karl J.
APPLICANT: LAL, Preeti
APPLICANT: LAL, Preeti
APPLICANT: JUNMING, Yalda
APPLICANT: JUNMING, Yang
APPLICANT: JUNMING, Yang
APPLICANT: SHIH, Leo L.
TITLE OF INVENTION PROLIFERATION AND APOPTOSIS RELATED PROTEINS
FILE REFERENCE: PF-0619 PCT
CURRENT APPLICATION NUMBER: US/10/839,882
CURRENT FILING DATE: 2004-05-05

PRIOR APPLICATION NUMBER: US/10/839,882

CURRENT FILING DATE: 2001-04-11
PRIOR APPLICATION NUMBER: US/10/807,452
PRIOR APPLICATION NUMBER: US/10/807,452

PRIOR APPLICATION NUMBER: US/10/807,452

PRIOR FILING DATE: 1998-10-20; 1999-02-04; 1999-04-11;
1999-04-22
                                                                                                                                                                                                                                                                                                                                                 RESULT 2
US-10-839-882-31
                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                              1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                           GluSerSerGlnPheProProGlyPhe 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ArgalaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                       DATE: 1998-10-20; 1998-10-20; 1999-02-04; 1999-04-11; 1999-04-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGCGGCCTCCACTTG
```

1620

540

1560

1500

520

1440 480 1380

500

09/249,740; unassigned

```
; NUMBER OF SEQ ID NOS:
; SOFTWARE: PERL Progra
; SEQ ID NO 31
; LENGTH: 1993
; TYPE: DNA
; ORGANISM: Homo sapie
; PEATURE:
; NAME/KEY: misc_featu
; OTHER INFORMATION: I
US-10-839-882-31
                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment
Pred. No.:
Score:
          밁
                  ક
                                  음 성 음
                                                                            8 8 8 8
                                                                                                                                        밁
                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                     문
                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                             ક
                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                    US-10-071-838-2 (1-549)
                                                                  642
                                                                                201
                                                                                                                             522
                                                                                                                                                          462
                                                                                                                                                                       141
                                                                                                                                                                                        402
                                                                                                                                                                                                                      342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scores:
          762
                                                     221
                                                                                                              181
                                                                                                                                           161
                                                                                                                                                                                                    121
                                                                                                                                                                                                                                   101
                                                                                                                                                                                                                                                   282
                                                                                                                                                                                                                                                                                 222
                                                                                                                                                                                                                                                                                                              162
                                                                                                                                                                                                                                                                                                                                          102
                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                           41
                                                                                                                                                                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                                                        42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID NOS:
                                                                                                                            HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                 CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                 HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                                                                                                                                   LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                              LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                                                                                 MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                                                                         ANATACGANNAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                   LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                      feature
ION: Incyte
                                                                                                                                                                                                                                                                                                                                                                                                                          6.45e-265
2978.00
99.8%
99.8%
99.8%
                                                                                                                                                                                                                                                                                                                                                                                                    ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 44
                                                                                                                                                                                                                                                                                                                                                                                                    US-10-839-882-31 (1-1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ.
                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                   1993
548
0
1
0
                                                   240
                                                                  701
                                                                                 220
                                                                                                641
                                                                                                              200
                                                                                                                             581
                                                                                                                                           180
                                                                                                                                                          521
                                                                                                                                                                        160
                                                                                                                                                                                       461
                                                                                                                                                                                                                    401
                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                  341
                                                                                                                                                                                                                                                                 100
                                                                                                                                                                                                                                                                                281
                                                                                                                                                                                                                                                                                              80
                                                                                                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                       40
                                      761
                                                                                                                                                                                                                                                                                                             221
                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                       101
RESULT 3
US-10-071-838-3
Sequence 3, Application US/10071838
Publication No. US20030044814A1
GENERAL INFORMATION:
APPLICANT: Li, Jing
APPLICANT: Powers, Scott
APPLICANT: Yiang, Phil
APPLICANT: Yiang, Phil
APPLICANT: Tularik Inc.
TITLE OF INVENTION: PRO75610US
FILE REFERENCE: 0138781-0075610US
CURRENT APPLICATION NUMBER: US/10/071,838
                                                                                                                                             á
                                                                                                                 S
                                                                                                                                   뫄
                                                                                                                                                          ₽.
                                                                                                                                                                         ð
                                                                                                                                                                                         밁
                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                  S
                                                                                                       멼
                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                닭
                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                           몆
                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                    1602
                                                                                                       1662
                                                                                                                                                                 1542
                                                                                                                                                                                             1482
                                                                                                                                                                                                                           1422
                                                                                                                                                                                                                                                          1362
                                                                                                                                                                                                                                                                                       1302
                                                                                                                                                                                                                                                                                                                    1242
                                                                                                                                                                                                                                                                                                                                                1182
                                                                                                                                                                                                                                                                                                                                                                             1122
                                                                                                                                                                                                                                                                                                                                                                                                           1062
                                                                                                                                                                                                                                                                                                                                                                                                                                        1002
                                                                                                                                                                              501
                                                                                                                                                                                                                                          461
                                                                                                                    541
                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                        441
                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                  401
                                                                                                                                                                                                                                                                                                                                                              381
                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                      321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              261
                                                                                                      GluSerSerGlnPheProProGlyPhe
                                                                                                                                                               ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                       GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                                                     GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                           AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
                                                                                                                                                                                             AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                  LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ThrArgIleAlaPheLy8ValGlnGlnLy8ArgLeuThrLy8ThrSerArgCy8GlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
               An Amplified Cancer
                                                                                                                     549
```

1541

500

1481

480

1421

460

1301

420

440

1241

1181

400

1121

1061

360

1003

300

941

1601

540

```
CURRENT FILING DATE: 2002-05-07;
PRIOR APPLICATION NUMBER: US 60/26;
PRIOR FILING DATE: 2001-02-08
NUMBER OF SEQ ID NOS: 18
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 3
LENGTH: 2146
TYPE: DNA
ORGANISM: Homo Bapiens
FEATURE:
FEATURE:
OTHER INFORMATION: human PRC17 sp:
FEATURE:
NAME/KEY: CDS
LCCATION: (1)..(1832)
US-10-071-838-3
문
           S
                               ₽
                                           S
                                                              밁
                                                                         ঠ
                                                                                              밁
                                                                                                         ১ ৪ ১
                                                                                                                                                             유
                                                                                                                                                                                       В
                                                                                                                                                                                                        S
                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                        ર્ક
                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                        US-10-071-838-2 (1-549) x US-10-071-838-3 (1-2146)
660
              160
                                                               540
                                                                              120
                                                                                               480
                                                                                                                                                              361
                               600
                                              140
                                                                                                                              420
                                                                                                                                                                                             301
                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                            121
                                                                                                              100
                                                                                                                                                                                                                                                            181
                                                                                                                                             80
                                                                                                                                                                             60
                                                                                                                                                                                                             54
                                                                                                                                                                                                                                            53
                                                                                                                                                                                                                                                                            53
                                                                                                                                                                                                                                                                                                        41
                                                                                                                                                                                                                                                                                                                          19
                                                                                                                                                                                                                                                                                                                                          21
                                                                                                                                                                                                                                                                                                                          LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                             MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                                              ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
         ArgAspArgTyrG1yThrLysG1nArgG1uLeuLeuHisI1eLeuLeuAlaTyrG1uG1u
                               MetLysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSer 139
                                                                                                                              GATATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTAC
                                                                                                                                       GCCCCGTGCAGTTCCTCAGCTCTGCCTGGGTTGCCTTACAGTGAGACGGAGCTGCCTCCT
                                                                                                                                                                                                                             CTGGAAAGGGACAGAGCCAGTCCTTTCTGGGGGTCGGCACCCAGGCTGGGGCCGCTCCAG
                                                                                                                                                                                                                                                            GCCCCACAGGAAGGCCCTTGTCCTCCCTTCCCTGTGCCTTCTCCTGGGCTGAGCCCTGAG
 AGGGATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                         2.31e-258
2907.50
89.7%
89.7%
97.5%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60/267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        splice variant 1 (exon 3 expanded)
                                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                , 615
                                                                                                                                                                                                       -GluThrGluLeuProPro
                                                159
                                                                                                539
                                                                                                              119
                                                                                                                               479
                                                                                                                                              99
                                                                                                                                                              419
                                                                                                                                                                                              360
                                                                                                                                                                                                              59
                                                                                                                                                                                                                                             53
                                                                                                                                                                                                                                                                                                                                            40
                                                                                                                                                                                                                                                                                                                                                           60
 719
                                659
                                                                                                                                                                                                                                                                                                            53
                                                                                                      음 성 음 성
                                                                                                                                                                 음 성 음
                                                                                                                                                                                                                 8 B 8
                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                중 음 성
                                                                                                                                                                                                                                                                                                                              8 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                 음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                            중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
          유 성
                                     유 성
                                                                  음 성
                                                                                                                                                                                                                                                                                                     1200
                                                                                                                                                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                      1440
                                                                                                                                                                                                       1380
                                                                                                                                                                                                                                      1320
                                                                                                                                                                                                                                                                     1260
                                                                                                                                                                                                                                                                                                                                    1140
                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                        1500
                                                                                                                                                                                                                                                                                                                   340
                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                260
                         520
                                                                                                                                                       440
                                                                                                                                                                                                                                                    380
                                                                                                                                                                                                                                                                                                                                                                                                                                 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgAlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHis
                                         GluArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPhe
                                                                                  ValArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAla
                                                                                                        LysThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArg
                                                                                                                                                                                                                                                                      CCAGCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGG
                                                                                                                                                                                                                                                                               ProAlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGly
                                                                                                                                                                                                                                                                                                     CTCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCC
                                                                                                                                                                                                                                                                                                             LeuLysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProPro
                                                                                                                                                                                                                                                                                                                                   ProTrpAlaArgPheCygAsnArgPheValAspThrTrpAlaArgAspGluAspThrVal
                                                                                                                                                                                                                                                                                                                                                                   IleThrargIlealaPheLysValGlnGlnLysargLeuThrLysThrSerArgCysGly
                                                                                                                                                                                                                                                                                                                                                                                                   GlyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetPro
                                                                                                                                                                                                                                                                                                                                                                                                                                  CysGlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCCTGCAGGGATTTCACAGCCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SerLeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TyrLeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHis
          AGAGCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCAC
                                                                                                                                                                                                                                        1379
                                                                                                                                                                                                                                                                                                       1259
            1799
                                          1739
                                                                          1679
                                                                                                         1619
                                                                                                                                         1559
                                                                                                                                                         459
                                                                                                                                                                         1499
                                                                                                                                                                                        439
                                                                                                                                                                                                        1439
                                                                                                                                                                                                                        419
                                                                                                                                                                                                                                                       399
                                                                                                                                                                                                                                                                       1319
                                                                                                                                                                                                                                                                                                                                     1199
                                                                                                                                                                                                                                                                                                                                                     339
                                                                                                                                                                                                                                                                                                                                                                                                     1079
                                                                                                                                                                                                                                                                                                                                                                                                                                   1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  839
                           539
                                                                                         499
                                                                                                                         479
                                                                                                                                                                                                                                                                                                                     359
                                                                                                                                                                                                                                                                                                                                                                                                                     299
                                                                                                                                                                                                                                                                                                                                                                                                                                                    279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                199
                                                          519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    959
```

141 HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg	л н	Qy 101 GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 120	Qy 81 MetLeuGlyAspTrpGluLy8TyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100 	Qy 61 ThralaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp 80			Qy 1 MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet 20	95.5% Indels: 7 Gaps:) x US-10-302-172-692 (1-2084)	No.: 4.58e-253 2850.00 Lt Similarity: 96.48 ocal Similarity: 96.28	; LOCATION: (163)(1755) US-10-302-172-692 Alignment Scores:		70	; PRIOR APPLICATION NUMBER: PCT US02/05095 ; PRIOR FILING DATE: 2002-03-05 ; PRIOR APPLICATION NUMBER: US 09/799,451 ; PRIOR FILING DATE: 2001-03-05			; APPLICANT: Tang, Y. Tom ; APPLICANT: Xue, Aidong J. ; APPLICANT: Drmanac Radoie T.	; sequence 92, Application US/103021/2 ; Publication No. US20040053250A1 ; GENERAL INFORMATION:	RESULT 4 US-10-302-172-692	Qy 540 LeuGluSerSerGlnPheProProGlyPhe 549 Db 1800 TTGGAAAGTTCTCAGTTCCCTCCAGGCTTC 1829
ð	D QY	B 8	da Qy	D QV	B 8	B &	B 8	B Q	Db Qy	Qy db	Ф	Db Qy	рь	р Q) 문 5	£ B	8	당 <i>&</i>	рь
501 ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg 520	481 ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu 500 	461 AspLeuAspValGluGlyProTrpPheArgH1sTyrAspPheArgGlnSerCysTrpVal 480		ValargGluAsgThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln		381 ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro 400 	361 AlaLyeProGluGlmGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys 380 	341 LysHisLeuArgAlaSerMetLysLysLysLeuThrArgLysGlnGlyAspLeuProProPro 360	321 TrpAlaArgPheCygAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340 	301 ThrargileAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro 320 	281 LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle 300 	261 GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly 280 	241 HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys 260 	221 LeuGINGLYPheH18SerProAsnGlyGlYThrVaIGINGLYCeuGInAspGlnGluGlu 240	709 CTTCCTGAGGAGGATGCATTCTGGGGCACTGGTGACGGCAGTGAGAGGCACTCC 768		181 AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr 200	161 AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 180 	:::

101 GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 	Qy 81 MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100	Oy 61 ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp 80	Qy 41 SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu 60	Oy 21 LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysBroPheArg 40	1 MetAspValVa 163 ATGGACGTGGT	94.8% 7 7) x US-10-302-172	Alignment scores: 6.08e-251 Length: Pered. No.: 827.00 Matches: Percent Similarity: 95.6% Conservative: 10.05.6% Mignatches: 10.05.6% Mignatches:	LOCAT	TYPE: DNA ORGANISM: FEATURE:	NUMBER OF SEQ ID NOS: 950 SOFTWARE: pt_FL_genes Version 2.0 SOFTWARE: pt_FL_genes Version 2.0 SOFTWARE: pt_FL_genes Version 2.0	PRIOR APPLICATION NUMBER: PCT US02/05095 PRIOR PILING DATE: 2002-03-05 PRIOR PILING DATE: 2002-03-05 PRIOR PILING DATE: 2001-03-05	CURRENT APPLICATION NUMBER: US/10/302,172 CURRENT FILING DATE: 2002-11-21 PRIOR APPLICATION NUMBER: US/10/225,251 PRIOR APPLICATION NUMBER: US/225,251	; APPLICANT: AUE, ALDONG J.; APPLICANT: Drmanac, Radoje T.; APPLICANT: Drmanac, Radoje T.; TITLE OF INVENTION: No. US20040053250Alel Arginine-rich Protein-like Nucleic Acids and TITLE OF INVENTION: Polypeptides	; sequence by: Application 05/15021/2 ; publication No. US20040053250A1 ; GENERAL INFORMATION: ; APPLICANT: Tang, Y. Tom ; APPLICANT: Tang, Y. Tom	LT 5 0-302-172-	Qy 541 GluSerSerGlnPheProBroGlyPhe 549	Db 1609 CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA 1668 Oy 521 AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu 540
gp Qy	B &	S B :	O D	8 B 1	S B S	g &	D Qy	g Q	g Q	B 8	D Q	D Qy	පි රි	B &	D Q	₽ \$	o da o
461 AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal 480 	GEAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCCAACG				361 AlalysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGyLys 380		321 TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340 	301 ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro 320 	281 LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle 300 	261 GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly 280		221 LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu 240 	201 LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer 220 	181 AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr 200 	161 AspArgTyrG1yThrLysG.nArgGiuLeuLeuH.1811eLeuLeuA.181yFG1uG1U1yF 160	CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG	121 LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu 140

Qy 81 MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100	Qy 41 SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu 60	Qy 1 MetaspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet 20	Pred. No.: 8.17e-251 Length: 2647 Percent Similarity: 95.6% Conservative: 0 Best Local Similarity: 95.6% Mismatches: 2 Query Match: 94.8% Indels: 2 DB: 6 Gaps: 1 US-10-071-838-2 (1-549) x US-10-108-260A-676 (1-2647)	; SOPTWARE: PatentIn Ver. 2.1 ; SEQ ID NO 676 ; LENGTH: 2647 ; TYPE: DNA ; ORGANISM: Homo sapiens US-10-108-260A-676 Alignment Scores:	GENERAL INFORMATION: USZOWADUOSSOWAL GENERAL INFORMATION: NO. USZOWADUOSSOWAL TITLE OF INVENTION: NO. USZOWADUOSSOWALEL full length cDNA FILE REFERENCE: H1-A0106 CURRENT APPLICATION NUMBER: US/10/108,260A CURRENT FILING DATE: 2002-03-27 NUMBER OF SEQ ID NOS: 5458	Db 1717 GAAAGTTCTCAGTTCCCTCCAGGCTTC 1743 RESULT 6 US-10-108-260A-676 Application US/10108260A	1657 GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG 541 GluSerSerGlnPheProProGlyPhe 549 [Qy 501 ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg 520	Oy 481 ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu 500
5	S B B B E	5 B S B S	D Q	p	B & B &	δ 4α γ	D 62 B	& B &	S B
2009 GANGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCCCCC			321 TrphlaargPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340	281 LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle 300	241 HigValValAlaThrSerOlinProLysThrMetGlyHisGlnAspLysLysAspLeuCys 260	LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlu 	1295 AACCCGGAGGTGGGCTÁCTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT 1354 201 LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer 220	181 ABREPOGLUVALGIJYTYCYSARGASPLEUSCHEUNIGHIJHIJHIJHIJHIJHIJHIJHIJHIJHIJHIJHIJHIJH	

US-10-071-838-2 (1-549) x US-10-094-466-61 (1-1752) Qy 1 MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet 20	cal Similarity: 93.8% stch: 93.3% 6	4.67e-247 Length: 2784.00 Matches: 96.2% Conservative:	; NAME/KEY: CDS ; LOCATION: (31)(1678) US-10-094-466-61	TYPE: DNA ORGANISM: FEATURE:	NUMBER OF SOFTWARE SEQ ID NO	APPLICATION NUMBER: 60/276,000 RILING DATE: 2001-03-14 APPLICATION NUMBER: 60/277,338 RILING DATE: 2001-03-20	PRIOR APPLICATION NUMBER: 60/335, PRIOR PILING DATE: 2001-10-31 PRIOR APPLICATION NUMBER: 60/275, PRIOR FILING DATE: 2001-03-13	PRIOR APPLICATION NUMBER: 60/338, PRIOR FILING DATE: 2001-12-04 PRIOR APPLICATION NUMBER: 60/275, PRIOR FILING DATE: 2001-03-13	PRIOR APPLICATION NUMBER: 60/274, PRIOR FILING DATE: 2001-03-09 PRIOR APPLICATION NUMBER: 60/275, PRIOR FILING DATE: 2001-03-12	PRIOR APPLICATION NUMBER: 60/274, PRIOR FILING DATE: 2001-03-08 PRIOR APPLICATION NUMBER: 60/288, PRIOR FILING DATE: 2001-05-02	FILE OF INVENTION: THE SAME FILE REFERENCE: 21402-290D CURRENT APPLICATION NUMBER: US/10 CURRENT FILING DATE: 2002-03-07	TITI	S-10-094- Sequence Publicat		Qy 521 AlaArgAspGluGInProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu 540	2189 CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
9 9 9 9	gg Qy	\$ &	Db Qy	D Qy	DB QQ	D Qy	g Q	D Q	D Qy	Q y	g Q	B 8	D Q	Db Q	B &	DЪ
		321 TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340 	301 ThrargilealapheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro 320	281 LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle 300 	261 GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly 280	241 HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys 260	221 LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu 240 	201 LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer 220	181 AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr 200 	161 AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 180 	141 HisTleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg 160 	121 LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu 140 	101 GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 120 :::	81 MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100 ::: ::: :::	61 ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp 80 	

1 MetAspvalvalGluvalAlaGlySerT 	93.0% Indels: 5 Gaps: 5 × US-10-071-838-5 (1-1862)	No.: it si ocal	; LOCATION: (1)(1538) US-10-071-838-5 Alignment Scores:	; FEATURE: ; OTHER INFORMATION: human PRC17 splice variant 2 (exon 10 deleted) ; FEATURE: ; NAME/KEY: CDS	LENGTH: TYPE: DN ORGANISM	; PRIOR FILING NOWIDER: US 00/20/,015 ; PRIOR FILING DATE: 2001-02-08 ; NUMBER OF SEQ ID NOS: 18 ; SOFTWARE: Patentin Ver. 2.1 ; SEC ID NO 5	; TITLE OF INVENTION: PRC17: An Amplified Cancer Gene ; FILE REFERENCE: 018781-007610US ; CURRENT APPLICATION NUMBER: US/10/071,838 ; CURRENT FILING DATE: 2002-05-07	APPLICANT: Powers, Scott APPLICANT: Xiang, Phil APPLICANT: Peng, Yue APPLICANT: Tularik Inc.	NFO	RESULT 8 US-10-071-838-5	541 GluSerSerGlnPheProProGlyPhe	Qy 521 AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu 540	Qy 501 ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg 520	1471 C	191 ASSIGNMENT OF THE PROPERTY	1351 GARGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCCCCC		Db 1231 ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT 1290 Qy 421 VəlArgGluAspThrTyrFroVəlGlyThrGlnGlyVəlFroSsrFroAlaLeuAlaGln 440
Q B Q	D Qy	р <i>Q</i>	D Qy	dd Qy	문 . 5	? B &	Db Qy	D 99	g Q	ОУ	рь	SQ DB	& B	Q D	. Q B	\$ \$ B	P &	Qy db
361 AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys 380	341 LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro 360 	321 TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340 	301 ThrargIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro 320	281 LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle 300				201 LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer 220 	181 AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr 200 	161 AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 180 	CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG	361 AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAAGAGGTCATCTGAG 420 141 HislleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisllePhePheArg 160	301 GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG 360 121 LysLsuLysAspTroGlyArgTyTGInIleMetLysGluLysGlyLysAspTserSerGlu 140	241 ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG 300 101 GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 120 	ACTGCGCGGGAGGCGAAGCAAATTCGGCGGAGATCAGCCGAAAGAGCAAGTGGGTGG	AGCTACAACAACAACGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG ThrAlaArgGluAlaLysGln1leArgArgGluIleSerArgLysSerLysTrpValAsp	SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu	21 LysTyrGluLysGlyHisArgAlaGlyLeuÈroGluAspLysGlyProLysProPheArg 40

```
APPLICANT: Hyeeq, Inc
APPLICANT: Hyeeq, Inc
FILE REFERENCE: 790C19/US
CURRENT APPLICATION UMMBER: US/10/450,763
CURRENT FILING DATE: 2003-06-11
PRIOR APPLICATION UMMBER: PCT/US01/08631
PRIOR FILING DATE: 2001-03-30
PRIOR FILING DATE: 2001-03-31
PRIOR FILING DATE: 2000-03-31
PRIOR FILING DATE: 2000-03-31
PRIOR FILING DATE: 2000-08-23
INUMBER OF SEQ ID NOS: 60736
SOFTWARE: CUStom
SEQ ID NO 21335
LENGTH: 7856
                    Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                 RESULT 9
US-10-450-763-21335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
US-10-071-838-2
                                                                              Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                Sequence 21335, Application US/10450763 Publication No. US20050196754A1 GENERAL INFORMATION:
                                                                                                                                                                            TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAAGTTCTCAGTTCCCTCCAGGCTTC 1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg 520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
(1-549)
                      1.62e-191
2191.50
88.2%
81.6%
73.5%
x US-10-450-763-21335 (1-7856)
                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               549
                                                                                                                                                                                                                                                                                                                                                                           POLYPEPTIDES
                     7856
408
33
58
1
                                                                                                                                             number
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1098
                         ঠ
                                                   밁
                                                                           δ
                                                                                                       문
                                                                                                                         δ
                                                                                                                                                      밁
                                                                                                                                                                         S
                                                                                                                                                                                               片
                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                        2474
                                                                                                                                                                                                                                                                                                                                                                                                   2234
                                                                                                                                                                                                                                                                                                                                                                                                                                                  2174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1814
                                   341
                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                                                                           201
                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101
                                                                                                                                                                                                                              261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                   GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HislleGlmArgIleAspArgAspValSerGlyThrLeuArgLysHisllePhePheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGCTGGGAGAATGGGAGACATATAAGCACAGTAGCAAACTCATAGATCGAGTGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAATCAACAGCAGCATTGATCGTTTTGGCATTTTTGCATGAGACGGAGCTGCCTCCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProDheArg
                            LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                                     HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                      CTGCCAGGATTCCACAGCCCAAATGGTGGGACAGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                  LeuGlnGlyPhcHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                                                                                                                                                                                 LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                                                                                                                                                                    AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCACCGCCTTGTTCCTCCTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                  AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                  GATCGATATGGAGCCAAGCAGGGAACTATTCTACATCCTCCTGGCCTATTCGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAGGGGCAAGAGGTCATCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAATTCCCATGAACATCCGGGGCCCGGTGTGGTCAGTCCTCCTGAACATTCAGGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGTATGACAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTGAGCCCGTT---
                                                          CTGCCTGAGGAGGACGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
             AAGCATCTTAGGGCCTCTACGAAGAAACTAACAAGGAAGCAAGGGGACCTGCCACCCCCA
                                                                                                                          ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro 320
                                                                                                         ACCAGCATTGCTCTTAAGGTTCAGCAGAAGCGCCTCATGAAGACATCCAGGTGTGGCCTG 2653
                                      360
                                                                                   340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1933
                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  40
                2773
                                                             2713
                                                                                                                                                            2593
                                                                                                                                                                                                          2533
                                                                                                                                                                                                                                                         2473
                                                                                                                                                                                                                                                                               260
                                                                                                                                                                                                                                                                                                       2413
                                                                                                                                                                                                                                                                                                                                                     2353
                                                                                                                                                                                                                                                                                                                                                                                                     2293
                                                                                                                                                                                                                                                                                                                                                                                                                                                     2233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
                                                                                                                                                                                                                                  280
                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                             220
                                                                                                                                                                                                                                                                                                                                                                                                                             200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80
```

Pred. No.: 1.62e-191	40 24017 10 24017 11 7856 DNA 12 18 18 18 18 18 18 18 18 18 18 18 18 18	- US/10/450,763 -06-11 -06-11 -07/US01/08631 -30/108631 -30/108631 -30/108631 -30/108631 -31/108631 -31/108631 -31/108631 -31/108631 -31/108631 -31/108631 -31/108631 -31/108631 -31/108631 -31/108631	ESULT 10 S-10-450-763-24017 Sequence 24017, Application US/10450763 Publication No. US20050196754A1 GENERAL INFORMATION: APPLICANT: Hyseq, Inc APPLICANT: Hyseq, INC TITLE OF INVENTION: NOVEL NUCLETC ACTOS AND BOLVBERTINES		Qy 421 ValargGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln 440	Qy 361 AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys 380
B & B & B & B &	Q Q Q Q Q Q	D Q D Q D Q	?	S & & B 1	Q	Q D Q D Q D
and the second s	261 GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly 280 :::	201 LeuFroeingilmsphaarneirpalaLeuvalGinLeuLeuhlassergilmxfghisser 220 21 Leufill			1934 ATGCTGGGAATGGGAGACATATAAGCACAGTAGCAAACTCATAGATCGAGTGTACAAG 1993 101 GlymetPrometAsnIleArgGlyPrometTrpSerValLeuLeuAsnIleGluGlumet 120	1757 AAGTATGACAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTGAGCCCGTT 1813 41 SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu 60

81 1934	Qy 61 ThrAlaArgGluAlaLyaGlnIleArgArgGluIleSerArgLyaSerLyaTrpValAsp 80	Qy 41 SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu 60	Qy 21 LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg 40	OY 1 MetAspValValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet 20	OCAL SIMILARITY: 01.08 MAtch: 3 3.5% 3.73 071 070 7.50 7.50 7.50 7.50 7.50 7.50 7.50	1.62e-191 Length: 2191.50 Matches: 88.2% Conservative:		; NUMBER OF SEQ ID NOS: 568 ; SOFTWARE: PatentIn version 3.0 ; SEQ ID NO 562 ; LENGTH: 7878	; PRIOR APPLICATION NUMBER: US/60/235,082 ; PRIOR FILING DATE: 2000-09-25 ; PRIOR FILING DATE: 2000-09-25 ; PRIOR FILING DATE: 2000-09-25	FILE OF INVENTION: Sets FILE REFERENCE: 689290-75 CURRENT APPLICATION NUMBER: US/09/962,436 CURRENT FILING DATE: 2001-09-25	; Patent No. US20020081301A1 ; GENERAL INFORMATION: ; APPLICANT: Soppet, Daniel ; TITLE OF INVENTION: Cancer Gene Determination and Therapeutic Screening Using Signatu	RESULT 11 US-09-962-436-562 ; Sequence 562, Application US/09962436	Qy 481 ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu 500	QY 461 AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal 480	Qy 441 GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr 460	Qy 421 ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln 440	Qy 401 IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla 420
אם אס	B &) B 4	S B 8	Ş. ₽. Q.	da Vo	Qy dd	Q2 -Q2	g Q	B &	유 성	g &	B 8	B &	p 9	p Q	g Qy	B &
441 GLYGIYPTOGINGIYSETITPATGENELEUGINI PABINSELMELETOA GUERTOTIH TOO 1 1 1 1 1 1 1 1 1	GICCGGGAAGACACGTACCCTGTGGGCACCTCAGGGTGTGCCCAGCCTGGCCCTGGCTCAG		201		341 LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro 360 	321 TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340 	301 ThrargllealaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro 320	281 LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle 300 	261 GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly 280	241 HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys 260	221 LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu 240 	201 LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer 220 	181 ABNPTOGluValGlyTyrCyBArgABpLeuSerHiBIleAlaAlaLeuPheLeuLeuTyr 200 	161 AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 180 	141 HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg 160 	121 LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu 140 	

```
Remaining Prior Application data re
NUMBER OF SEQ ID NOS: 8447
SOFTWARE: PatentIn version 3.0
SEQ ID NO 3021
LENGTH: 7878
TYPE: DNA
ORGANISM: Homo sapiens
US-10-843-641A-3021
 밁
                       S
                                                                                                                           밁
                                                                                                                                                      Ś
                                                                                                                                                                                            밁
                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                          Best Local Similarity: Query Match:
DB:
                                                             밁
                                                                                      S
                                                                                                                                                                                                                                                          US-10-071-838-2 (1-549)
                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                       Score:
                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/10/843,641A
CURRENT FILING DATE: 2001-06-05
PRIOR APPLICATION NUMBER: US/09/873,367
PRIOR APPLICATION NUMBER: US/09/954,531
PRIOR APPLICATION NUMBER: US/09/954,456
PRIOR APPLICATION NUMBER: US/09/964,456
PRIOR APPLICATION NUMBER: US/09/962,436
PRIOR APPLICATION NUMBER: US/09/962,436
PRIOR APPLICATION NUMBER: US/09/962,832
PRIOR FILING DATE: 2001-09-25
PRIOR PILING DATE: 2001-09-25
PRIOR APPLICATION NUMBER: US/09/964,824
PRIOR APPLICATION NUMBER: US/09/964,824
PRIOR APPLICATION NUMBER: US/09/967,768
PRIOR APPLICATION NUMBER: US/09/967,768
PRIOR FILING DATE: 2001-09-28
PRIOR PILING DATE: 2001-09-28
PRIOR APPLICATION NUMBER: US/09/968,007
PRIOR APPLICATION NUMBER: US/09/969,347
PRIOR APPLICATION NUMBER: US/09/969,347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 12
US-10-843-641A-3021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3021, Application US/10843641A Publication No. US20050064454A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Avalon Pharmaceuticals, Inc.
TITLE OF INVENTION: Cancer Gene Determination and
TITLE OF INVENTION: Signature Gene Sets
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILE REFERENCE: 689290-189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/09/969,708 FILING DATE: 2001-10-03
                                                                                                                              1757
                                                                                                                                                                                              1697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3074
 1874
                                                             1814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                              61
                                                                                             41
                                                                                                                                                            21
                                                                                                                                             LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                         ATGGACATGGTAGAGAATGCAGATAGTTTGCAGGCACAGGAGCGGAAGGACATACTTATG
                                                                                                                                                                                                           MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                              SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                             GGAATCAACAGCAGCATTGATCGTTTTGGCATTTTGCATGAGACGGAGCTGCCTCCTGTG
                                                                                                                              AAGTATGACAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTGAGCCCGTT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTGCCATATCCCAGGAGGACCAGCTGGCCACCTGCTGGCAGGCTGAACACTGCGGAGAG
                                                                                                                                                                                                                                                                                           1.62e-191
2191.50
88.2%
81.6%
73.5%
                                                                                                                                                                                                                                                          x US-10-843-641A-3021 (1-7878)
                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  See File Wrapper or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Therapeutic Screening
                                                             1873
                                                                                             60
                                                                                                                             1813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                            40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                밁
                                        5
                                                                            밁
                                                                                                    5
                                                                                                                                        뫄
                                                                                                                                                                   S
                                                                                                                                                                                                         맑
                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                      망
                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                2954
                                                                                                                                            2834
                                                                                                                                                                                                           2774
                                                                                                                                                                                                                                                                       2714
                                                                                                                                                                                                                                                                                                                                        2654
                                                                                                                                                                                                                                                                                                                                                                                                      2594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1994
                                                                                                                                                                          381
                                              421
                                                                                                            401
                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                     321
                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      81
                                                                                                                                                                                                                                                                       ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln 440
                                                                                                                                                                                                                                   AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                GTCCGGGAAGACACGTACCCTGTGGGCACTCAGGGTGTGCCCAGCCTGGCCCTGGCTCAG 3013
                                                                                                IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
                                                                                                                                             ACCCTCTGCAAGGGGTATAGGCAGGCCCCTCCAGGCCCACCAGCCCAGTTCCAGCGGCCC
                                                                                                                                                                 ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
                                                                                                                                                                                                           GCCAAACGCGAGCAAGGGTCCTTGGCACCCAGGCCTGTGCCGGCTTCACGTGGGGAAG
                                                                                                                                                                                                                                                                                                                                                         TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu
                                                                                                                                                                                                                                                                                                                                                                                                        ACCAGCATTGCTCTTAAGGTTCAGCAGAAGCGCCTCATGAAGACATCCAGGTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                       ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTCACCCTGCGCCTGTGGGACGTGTATTTGGTGGAAGGAGAACAGGTGTTGATGCCAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGCCAGGATTCCACAGCCCAAATGGTGGGACAGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGCCTGAGGAGGACGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCACCGCCTTGTTCCTCCTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAATTCCCATGAACATCCGGGGCCCGGTGTGGTCAGTCCTCCTGAACATTCAGGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGCTGGGAGAATGGGAGACATATAAGCACAGTAGCAAACTCATAGATCGAGTGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                                                                        TGGGCACGTCTGCGGAACCAATTCTTCGATACCTGGGCCATGAACGATGACACCGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <del>-</del>
                                                                              2953
                                                                                                                                                                                                                                                                         2773
                                                                                                            420
                                                                                                                                            2893
                                                                                                                                                                                                           2833
                                                                                                                                                                                                                                                                                                                                        2713
                                                                                                                                                                                                                                                                                                                                                                                                      2653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2113
                                                                                                                                                                           400
                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                      340
                                                                                                                                                                                                                                                                                                                                                                                                                                      320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100
```

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Wyeth

APPLICANT: Mounts, William

TITLE OF INVENTION: HUMAN OSTEOARTHRITIS AND HUMAN PROTEASES

FILE REFERENCE: 031896-043000 (AM 101081)

CURRENT APPLICATION NUMBER: US4/10/956,157

CURRENT FILING DATE: 2004-10-04

NUMBER OF SEQ ID NOS: 319805

SOFTWARE: Patentin version 3.2

SEQ ID NO 1259

TYPE: DNA

ORGANISM: Homo sapiens

US-10-956-157-1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-956-157-1259

(S-10-956-157-1259)

(Sequence 1259, Application US/10956157)

(Publication No. US20050118625A1)

(GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
 8
                S
                                           밁
                                                                S
                                                                                        밁
                                                                                                                                    밁
                                                                                                                                                       S
                                                                                                                                                                           밁
                                                                                                                                                                                                  δ
                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                       뫄
                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                   US-10-071-838-2 (1-549)
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
0
::
  2114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3014
                                              2054
                                                                                          1994
                                                                                                                                      1934
                                                                                                                                                                                   1874
                                                                                                                                                                                                                              1814
                                                                                                                                                                                                                                                                            1757
                                                                                                                                                                                                                                                                                                                         1697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              441
                    141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  461
                                                                  121
                                                                                                                101
                                                                                                                                                           81
                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                     41
                                                                                                                                                                                                                                                                                                  21
                                                                                                                                                                                                                                                                                                                                               μ
CACATCCACCACCÁTCGACCTGGACGTGAGGACGACTCTCCGGAACCATGTCTTTAGG
                                              ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                           SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                         LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                                                                                                                                                                    MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAGGACCTCAGGGTTCCTGGAGATTCCTGGAGTGGAAGTCAATGCCCCGGCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
              HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                                                                      MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                  GGAATCAACAGCAGCATTGATCGTTTTTGGCATTTTTGCATGAGACGGAGCTGCCTCCTGTG
                                                                                                                                                                                                                                                                                                                       ATGGACATGGTAGAGAATGCAGATAGTTTGCAGGCACAGGAGCGGAAGGACATACTTATG
                                                                                                                                                                                                                                                                             AAGTATGACAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTGAGCCCGTT---
                                                                                                                                                                                                                                                                                                                                                                                                   1.62e-191
2191.50
88.2%
81.6%
73.5%
                                                                                                                                                                                                                                                                                                                                                                   x US-10-956-157-1259 (1-7878)
                                                                                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                           7878
408
33
58
1
                       160
                                                                                                                                                                                    1933
                                                                                                                                                                                                                                                                             1813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               460
   2173
                                              2113
                                                                                            2053
                                                                                                                  120
                                                                                                                                         1993
                                                                                                                                                                                                                                1873
                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                          1756
                                                                     140
                                                                                                                                                                                                         80
                                                                                                                                                                                                                                                                                                   40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HITH
 RESULT 14
US-10-450-763-24016
; Sequence 24016, Application US/10450763
; Publication No. US20050196754A1
                                                           밁
                                                                         ð
                                                                                                     문
                                                                                                                    ð
                                                                                                                                            유성
                                                                                                                                                                                     문
                                                                                                                                                                                                             S
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                               F
                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        청 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                       3074
                                                                                                                                                  3014
                                                                                                                                                                                                                                                                                         2834
                                                                                                                                                                                                                                                                                                                                                                                2714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2234
                                                                                                                                                                                               2954
                                                                                                                            461
                                                                                                                                                                        441
                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                 401
                                                                                                                                                                                                                                                                                                              381
                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                  321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     161
                                                                                481
                                                         LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HigValValAlaThrSerGlnProLygThrMetGlyHigGlnAspLygLygAspLeuCyg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATCGATATGGAGCCAAGCAGAGGGAACTATTCTACATCCTCCTGGCCTATTCGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                                                                                                         ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
                                                                                                                                                                                                                                                                                                                                                                                              LysHisLeuArgAlaSerMetLysLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCCTGAGGAGGACGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                       GACCTGGATATAGGGGGCCCTTGGTTCCCCCATTATGATTTTGAACGGAGCTGCTGGGTC
                                                                                                                  AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                              GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                GTCCGGGAAGACACGTACCCTGTGGGCACTCAGGGTGTGCCCAGCCTGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                      GCCAAACGCGAGCAAGGGTCCTTGGCACCCAGGCCTGTGCCGGCTTCACGTGGTGGGAAG
                                                                                                                                                                                                                                                                                                                                                 AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                                 AAGCATCTTAGGGCCTCTACGAAGAAACTAACAAGGAAGCAAGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCAGCATTGCTCTTAAGGTTCAGCAGAAGCGCCTCATGAAGACATCCAGGTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ThrargIleAlaPheLy8ValGlnGlnLy8ArgLeuThrLy8ThrSerArgCy8GlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCCAGGATTCCACAGCCCAAATGGTGGGACAGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCACCGCCTTGTTCCTCCTTTAT
                                                                                                                                                    GGAGGACCT
                                                                                                                                                                                                                                            ATTTGCTCAGCTTCCCCGCCATGGGCATCTCGTTTTTCCACGCCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCACCCTGCGCCTGTGGACGTGTATTTGGTGGAAGGAGAACAGGTGTTGATGCCAATA
                                                                                                                                                                                                                                                        eTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
                                                                                                                                                                            460
                                                                                                                                                                                                                      440
                                                                                                                                                                                                                                                                                                                400
                                                                                  500
                                                                                                                              480
                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                               2713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2653
                                                             3193
                                                                                                          3133
                                                                                                                                                      3073
                                                                                                                                                                                                  3013
                                                                                                                                                                                                                                              2953
                                                                                                                                                                                                                                                                                          2893
                                                                                                                                                                                                                                                                                                                                       2833
                                                                                                                                                                                                                                                                                                                                                                                    2773
                                                                                                                                                                                                                                                                                                                                                                                                                                                      340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                             380
                                                                                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          200
```

```
GENERAL INFORMATION:

APPLICANT: Hyseq, Inc

IIILE OF INVENTION: NOVEL NUCLEIC ACIDS AND POI

FILE REFERENCE: 790CIP3/US

CURRENT APPLICATION NUMBER: US/10/450,763

CURRENT FILING DATE: 2003-06-11

PRIOR APPLICATION NUMBER: PCT/US01/08631

PRIOR FILING DATE: 2001-03-30

PRIOR FILING DATE: 2000-03-31

PRIOR APPLICATION NUMBER: 09/540,217

PRIOR APPLICATION NUMBER: 09/649,167

PRIOR APPLICATION NUMBER: 09/649,167

PRIOR FILING DATE: 2000-08-23

NUMBER OF SEQ ID NOS: 60736

SOFTWARE: CUSTCOM

SEQ ID NO 24016

LENGTH: 8180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
Query Match:
DB:
               ð
                                      밁
                                                           ð
                                                                                       밁
                                                                                                          S
                                                                                                                                   문
                                                                                                                                                           S
                                                                                                                                                                                        밁
                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                       망
                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-071-838-2 (1-549)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-450-763-24016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME/KEY: SIMILAR LOCATION: (4369)...(6126)
OTHER INFORMATION: 97% homologous to Homo sapiens oncogene, accession number OTHER INFORMATION: X63546, Smith-Waterman Score=3063.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Homo FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
                                                                                                                                                                                                                                                                                                                                          1814
                                                                                                                                                                                                                                                                                                                                                                                          1757
                                                                                                                                                                                          1994
                                                                                                                                                                                                                                          1934
                                                                                                                                                                                                                                                                                           1874
                181
                                                                                                                141
                                                                                                                                                                121
                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                   41
                                                                                                                                                                                                                                                                                                                                                                                                                   21
AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                        GATCGATATGGAGCCAAGCAGAGGGAACTATTCTACATCCTCCTGGCCTATTCGGAGTAT
                                                                                                        HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                                                                  LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                                                                                                                     SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                          MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
|||||||:::||||||
                                                                                      CACATCCACCACATCGACCTGGACGTGAGGACGACTCTCCGGAACCATGTCTTTAGG
                                                                                                                                                                                                   GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                                                      MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                                                                                                                         AAGTATGACAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTGAGCCCGTT---
                                                                                                                                                                                                                                                                                                                                                                                                         Ly8TyrGluLy8GlyHi8ArgAlaGlyLeuProGluA8pLy8GlyProLy8ProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGGACATGGTAGAGAATGCAGATAGTTTGCAGGCACAGGAGCGGAAGGACATACTTATG
                                                       AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                                                                                       GGAATTCCCATGAACATCCGGGGCCCGGTGTGGTCAGTCCTCCTGAACATTCAGGAAATC
                                                                                                                                                                                                                                       ATGCTGGGAGAATGGGAGACATATAAGCACAGTAGCAAACTCATAGATCGAGTGTACAAG
                                                                                                                                                                                                                                                                                                                                         GGAATCAACAGCAGCATTGATCGTTTTGGCATTTTGCATGAGACGGAGCTGCCTCCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3.88e-186
2133.50
77.2%
71.5%
71.5%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           x US-10-450-763-24016 (1-8180)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8180
408
33
58
72
                                                                                                                                                             140
                                                               180
                                                                                       2173
                                                                                                                160
                                                                                                                                       2113
                                                                                                                                                                                       2053
                                                                                                                                                                                                              120
                                                                                                                                                                                                                                       1993
                                                                                                                                                                                                                                                               100
                                                                                                                                                                                                                                                                                        1933
                                                                                                                                                                                                                                                                                                                                         1873
                                                                                                                                                                                                                                                                                                                                                                                        1813
                                                                                                                                                                                                                                                                                                                                                                                                                40
                                                                                                                                                                                                                                                                                                                 80
                                                                                                                    S
   밁
                   S
                                                  밁
                                                                    δ
                                                                                           밁
                                                                                                                                                  밁
                                                                                                                                                                    S
                                                                                                                                                                                                片
                                                                                                                                                                                                                     र्
                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                           ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                     뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       吊
                                                                                                                                                                                                 3074
                                                                                                                                                                                                                                                   3014
   3314
                                                                                                   3194
                                                                                                                                                   3134
                                                                                                                                                                                                                                                                                                    2954
                                                                                                                                                                                                                                                                                                                                                     2894
                                                                                                                                                                                                                                                                                                                                                                                                                                                     2774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2294
                                                                                                                          430
                                                                                                                                                                          410
                                                                                                                                                                                                                          390
                                                                                                                                                                                                                                                                          370
                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
 OPTOGlyProProAlaArgPheProArgProIleTrpSerAlaSerProProArgAlaPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGGCACGTCTGCGGAACCAATTCTTCGATACCTGGGCCATGAACGATGACACCGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAGTGGAAGTCAATGCCCCGGCTCCCAACGGACCTGGATATAGGGGGCCCCTTGGTTCCC
                                                               uGlnTrpAsnSerMetProArgLeuProThrAspLeuAspValGluGlyProTrpPheAr 470
                                                                                                               rGlnGlyValProSerProAlaLeuAlaGlnGlyGlyProGlnGlySerTrpArgPheLe
                                                                                                                                                                 oArgSerSerThrProCysProGlyGlyAlaValArgGluAspThrTyrProValGlyTh
                                                                                                                                                                                                                                                                 rArgProValProAlaSerArgGlyGlyLysThrLeuCysLysGlyAspArgGlnAlaPr
                                                                                                                                                                                                                                                                                                  ACACAGAGACCCCAAGGACTCCAGAGATGCAGCCAAACGCGAGCAAGGGTCCTTGGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSorGluArgHisSer 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCACCGCCTTGTTCCTCCTTTAT 2293
                                                                                                  TCAGGGTGTGCCCAGCCTGGCCCTGGCTCAGGGACCTCAGGGTTCCTGGAGATTCCT
                                                                                                                                                                                                                                                                                                                                                    ACCCCTCCCTCTGGGATCAGCAGACTACAGGCGTGTCGTCAGTGTCAGACCACAGGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                     GGGGCAGTCCCAGGAGCCACCCATGCCCCAACGGCTTCCCCATGCCAGGCAGCACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCAGCATTGCTCTTAAGGTTCAGCAGAAGCGCCTCATGAAGACATCCAGGTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----AlaLysProGluGlnGlySerSerAlaSe
                                                                                                                                                                                                                                                                                                                           370
                                                  3313
                                                                                                3253
                                                                                                                                                  3193
                                                                                                                                                                                                                                                                                                 3013
                                                                                                                                                                                                                                                                                                                                                                                                   2893
                                                                                                                                                                                                                                                                                                                                                                                                                                                   2833
                                                                                                                          450
                                                                                                                                                                         430
                                                                                                                                                                                                                          410
                                                                                                                                                                                                                                                 3073
                                                                                                                                                                                                                                                                          390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2593
                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2353
```

```
APPLICATION NUMBER: 60/341,012
PRIOR APPLICATION NUMBER: 60/340,081
PRIOR APPLICATION NUMBER: 60/340,938
PRIOR APPLICATION NUMBER: 60/340,938
PRIOR PILING DATE: 2001-10-30
PRIOR APPLICATION NUMBER: 60/340,081
PRIOR PILING DATE: 2001-10-30
PRIOR APPLICATION NUMBER: 60/340,081
PRIOR PILING DATE: 2001-10-30
PRIOR APPLICATION NUMBER: 60/341,012
PRIOR PILING DATE: 2001-10-30
PRIOR PILING DATE: 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                             S
                                                                                         밁
                                                                                                                                                                 밁
                                                                                                                                                                                                   S
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: DNA
; ORGANISM: HUMAN
US-10-283-975A-272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 15
US-10-283-975A-272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                 밁
                                                                                                                         S
                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-071-838-2 (1-549) x US-10-283-975A-272 (1-8201)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 272, Application US/10283975A Publication No. US20040110792A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Х
О
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3374
                 2114
                                                                                                                                                                                                                                                                                                                            1874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1697
                                                                                           2054
                                                                                                                                                                       1994
                                                                                                                                                                                                                                                   1934
                                                                                                                                                                                                                                                                                                                                                                                                      1814
                                                     141
                                                                                                                               121
                                                                                                                                                                                                           101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     490
                                                                                                                                                                                                                                                                                       81
                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                          41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    21
                                             HisīleGlnArgīleAspArgAspValSerGlyThrLeuArgLysHisīlePhePheArg 160
                                                                                                                                                                                                                                                                                                                                                                                                    GGAATCAACAGCAGTTGATCGTTTTGGCATTTTGCATGAGACGGAGCTGCCTCCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MetAspValValGluValAlaGlySerTzpTzpAlaGlnGluArgGluAspIleIleMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACCTGCTGGCAGGCTGAACACTGCGGAGAG 3404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACATCCACCACATCGACCTGGACGTGAGGACGACTCTCCGGAACCATGTCTTTTAGG
                                                                                                                 LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                     GGAATTCCCATGAACATCCGGGGCCCCGGTGTGGTCAGTCCTCCTGAACATTCAGGAAATC
                                                                                                                                                                                         GlyMctProMctAsnIleArgGlyProMctTrpScrValLcuLcuAsnIlcGluGluMct 120
                                                                                                                                                                                                                                                   ATGCTGGGAGAATGGGAGACATATAAGCACAGTAGCAAACTCATAGATCGAGTGTACAAG
                                                                                                                                                                                                                                                                           MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100
                                                                                                                                                                                                                                                                                                                            ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3.9e-186
2133.50
77.2%
71.5%
71.5%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Treating Leukemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8201
408
33
58
72
                                                                                                                                                                                                                                                                                                                                                                                                  1873
                                                                                                                                                                                                                                                     1993
                                                                                                                                                                                                                                                                                                                                                                    80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1813
                   2173
                                                                                             2113
                                                                                                                                                                         2053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ίδ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       닭
                           밁
                                                                 ঠ
                                                                                                                 밁
                                                                                                                                           S
                                                                                                                                                                               닭
                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2654
                                                                                                                                                                                             3074
                                                                                                                                                                                                                                                                         3014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
uGlnTrpAsnSerMetProArgLeuProThrAspLeuAspValGluGlyProTrpPheAr 470
                                                                                                                                                                                                                                                                                                                                                ACACAGAGACCCCAAGGACTCCAGAGATGCAGCCAAACGCGAGCAAGGGTCCTTGGCACC 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro|
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGCACGTCTGCGGAACCAATTCTTCGATACCTGGGCCATGAACGATGACACCCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGCCAGGATTCCACAGCCCAAATGGTGGGACAGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCACCGCCTTGTTCCTTCTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AsnProGluValGlyTyrCysArgAspLeuSerHislleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                     oArgSerSerThrProCysProGlyGlyAlaValArgGluAspThrTyrProValGlyTh 430
                                                                                                                                                                                                                     GGGGCAGTCCCAGGAGCCACCCACCATGCCCCAACGGCTTCCCCCATGCCAGGCAGCACAC 2893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCAGCATTGCTCTTAAGGTTCAGCAGAAGCGCCTCATGAAGACATCCAGGTGTGGCCTG
                                                                                                                                                                                               TCCAGGCCCACCAGCCCAGTTCCAGCCGACCCATTTGCTCAGCTTCCCCGCCATGGGCATC 3133
                                                                                                                                                                                                                                                                                             rArgProValProAlaSerArgGlyGlyLysThrLeuCysLysGlyAspArgGlnAlaPr 390
                                                                                                                                                                                                                                                                                                                                                                                                                            ACCCCTCCCTCTGGGATCAGCAGACTACAGGCGTGTCGTCAGTGTCAGACCACAGGGGGCC 2953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGCATCTTAGGGCCTCTACGAAGAAACTAACAAGGAAGCAAGGGGACCTGCCACCCCCA
                                                                 rGlnGlyValProSerProAlaLeuAlaGlnGlyGlyProGlnGlySerTrpArgPheLe 450
                                                                                                                   TCGTTTTTCCACGCCCTGTCCTGGTGGGGGCTGTCCGGGAAGACACGTACCCTGTGGGCAC 3193
                                                                                                                                                                                                                                                                                                                                                                                  -AlaLysProGluGlnGlySerSerAlaSe 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2233
                                                                                                                                                                                                                                                                             3073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             220
                                             3253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          260
```

ī
0
Ĭ
μ
1
œ
Ü
œ
1
N
•
н
Ħ
יסׁי
ŏ
Ĭ
ב

Searc	B &	ያ	망
Search completed: April 5, 2006, 15:15:55 Job time : 1256 secs	490 aProCysTrpGlnAlaGluHisProAlaGlu 500	470 gHisTyrAspPheArgGlnSerCysTrpValArgAlaIleSerGlnGluAspGlnLeuAl 490	-::

the see were the

This Page Blank (Uspto)

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -MODEL-frame+ parameter - DEV=xlh
-QC/Abss/AbsSWEB spool/US10071838/runat_05042006_141917_5227/app_query.fasta_1
-Q2/Abss/AbsSWEB spool/US10071838/runat_05042006_141917_5227/app_query.fasta_1
-DB=18sued_Partents_NA -QFMT=fastap -SUFFIX=rni -MINMATCH=0.1 -LOOPCL=0
-LOOPEXT=0 - UNITS=bite - START=1 -END=-1 -MATRIX=blosum62 - TRANS=human40.cdi
-LIST=45 -DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15
-MODE-LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
-HOST=abss07 -USER=US10071838 @CGCN 1 1 193 @runat 05042006 141917_5227 NCPU=6
-ICPU=3 -NO_MMAP -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV_TIMEOUT=120
-MARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Command line parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -YGAPÕP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                      ĕ
                                                                                                                                                                                                                                                                                            Pred. No. is the number of results predicted by charce to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                        2850
2827
2133.5
344
337
337
332.5
258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB
DB
                                                                                                                                                                                                  Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length: 0
length: 2000000000
                                                                                                                                                                                             Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Xgapop 10.0 , y
Ygapop 10.0 , y
Fgapop 6.0 , F
Delop 6.0 , F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-071-838-2
2983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Issued_Patents_NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1303057 ведв,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              April
        95.5
94.8
71.5
11.5
11.3
11.3
11.3
                                                                                                                                                                                                                                                                                                                                                                   /cgn2_6/ptodata/1/ina/1 COMB.seq:*
/cgn2_6/ptodata/1/ina/5_COMB.seq:*
/cgn2_6/ptodata/1/ina/6_COMB.seq:*
/cgn2_6/ptodata/1/ina/6_COMB.seq:*
/cgn2_6/ptodata/1/ina/H_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_COMB.seq:*
/cgn2_6/ptodata/1/ina/PCTUS_SOMB.seq:*
/cgn2_6/ptodata/1/ina/RE_COMB.seq:*
/cgn2_6/ptodata/1/ina/RE_COMB.seq:*
/cgn2_6/ptodata/1/ina/RE_COMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MDVVEVAGSWWAQEREDIIM.....TSGPCLCGLHLESSQFPPGF 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Copyright
                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5, 2006, 14:49:32 ; Search time 289 Seconds
        2084
2072
8201
1981
1823
1823
1925
3039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                                                                                                                  BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Xgapext
Ygapext
Fgapext
Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        888780828 residues
  US-09-799-451-692

US-09-799-451-691

US-08-253-155A-9

US-09-620-312D-715

US-09-774-528-336

US-09-774-528-336

US-09-949-016-2139

US-09-949-016-2139

US-09-620-312D-676
                                                                                                                                                                                                                                                            SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0.5
0.5
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (without alignments)
3376.752 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2606114
                                                        Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                Description
    Sequence
                        Sequence
  692, App
691, App
15, Appli
715, App
336, App
336, App
2139, Ap
675, App
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 1
US-09-799-451-692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0 0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 იი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ß
FILE REFERENCE: 803
CURRENT APPLICATION NUMBER: US/09/799,451
CURRENT FILING DATE: 2001-03-05
NUMBER OF SEQ ID NOS: 948
SOFTWARE: pt_FL_genes Version 2.0
SEQ ID NO 692
LENGTH: 2084
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No. 6783969
GENERAL INFORMATION:
APPLICANT: Tang, Y. Tom
APPLICANT: Zhou, Ping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 692,
                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                     APPLICANT: Wang, Dunrui
APPLICANT: Yang, Yonghong
APPLICANT: Wehrman, Tom
APPLICANT: Ghosh, Reena
APPLICANT: Drmanac, Radoje T.
APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. 6783969el Nucleic Acids and
TITLE OF INVENTION: Polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2987829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           194.5
182.5
175.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      150.5
150.5
149
149
148.5
148.5
148.5
148.5
148.5
148.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              172
172
170.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      163.5
163.5
162
158.5
158.5
156.1
155.5
150.5
                                                                                                                                                                                                                                                                                  Wang, war Wanging
Ma, Yunging
Yamazaki, Victoria
Then, Rui-hong
                                                                                                                                                                                                                                                                                                                                                                     Zhang, Jie
Xue, Aidong J
Zhao, Qing A.
Wang, Jian-Rui
                                                                                                                                                                                                                                                                                                                                                                                                                                Ren, Feiyan
Zhang, Jie
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Goodrich, Ryl
Asundi, Vinod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Application US/09799451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ping
Ryle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1056
2066
2066
20113
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618857
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
618957
61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-08-363-300-1
US-09-762-311-3
US-09-762-311-3
US-09-762-311-3
US-09-762-311-4
US-09-533-559-4537
US-09-248-796A-1133
US-10-104-047-56
US-09-902-540-1173
US-09-949-016-15122
US-09-949-016-15122
US-09-949-016-2477
US-09-902-540-1183
US-09-902-540-875
US-09-902-540-875
US-09-902-540-875
US-09-902-540-875
US-09-902-540-875
US-09-902-540-875
US-09-902-540-1189
US-09-902-540-1189
US-09-902-540-1189
US-09-902-540-1189
US-09-902-540-1189
US-09-902-540-1189
US-09-902-540-1189
US-09-902-540-1189
US-09-902-540-1189
US-09-902-540-1212
US-09-902-540-1212
US-09-902-540-1212
US-09-902-540-1212
US-09-902-540-1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-248-796A-5457
US-09-949-016-1620
US-09-270-767-12482
US-09-270-767-9899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540, App
1173, Ap
1173, Ap
1173, Ap
1150, Appli
11504, Ap
11512, A
987, Ap
1820, Ap
1911, Appli
1911, Appli
1911, Appli
1912, Ap
1820, Ap
1820, Ap
1820, Ap
1820, Ap
1820, Ap
1821, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1, Appli
3, Appli
4, Appli
4537, Ap
1133, Ap
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1620, 1
12482,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9899,
```

1008

1068

```
; ORGANISM: Homo sap
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (163)...(:
US-09-799-451-692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores:
Pred. No.:
Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                             ð B
                                                                                                                                                                            음 성 음
  ş
                밁
                            ঠ
                                             문
                                                                                             8 8 8 8
                                                                                                                                                            S
                                                                                                                                                                                                                             ঠ 🖁 ঠ
                                                                                                                                                                                                                                                                             8 8 8 8
                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                             중 유
                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-071-838-2 (1-549) x
                                                                                                                                                 649
   281
                  889
                               261
                                                   829
                                                                 241
                                                                                 769
                                                                                                  221
                                                                                                                  709
                                                                                                                                 201
                                                                                                                                                                181
                                                                                                                                                                                  589
                                                                                                                                                                                                 161
                                                                                                                                                                                                                  529
                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                  523
                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                  463
                                                                                                                                                                                                                                                                                                  101
                                                                                                                                                                                                                                                                                                                  403
                                                                                                                                                                                                                                                                                                                                                  343
                                                                                                                                                                                                                                                                                                                                                                                 283
                                                                                                                                                                                                                                                                                                                                                                                                                 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                 163
                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                 41
                                                                                                                                                                                                                                                                                                                                                                                                                               21
                 HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                 LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                           AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                           SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                         LygTyrGluLygGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
  LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                   CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                  AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTAT
                                                                                                                                                                                                                                                                 LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                                                                                                                                                                                                                  AGCTACAACAACGTCGATCATTTGGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5.03e-183
2850.00
96.4*
96.2*
95.5*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-799-451-692 (1-2084)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1821
                                                                                                                                                                                                  180
                                                                                                                                                                                                                                  160
                                                                                                                                                                                                                                                                 140
                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                  462
                                                                                                                                                                                                                                                                                                                                 100
                                                                                                                                                                                                                                                                                                                                                   402
                                                                                                                                                                                                                                                                                                                                                                                                                               40
                   948
                                 280
                                                   888
                                                                  260
                                                                                  828
                                                                                                  240
                                                                                                                  768
                                                                                                                                                  708
                                                                                                                                                                  200
                                                                                                                                                                                   648
                                                                                                                                                                                                                  588
                                                                                                                                                                                                                                                  528
                                                                                                                                                                                                                                                                                   522
                                                                                                                                                                                                                                                                                                                                                                  80
                                                                                                                                                                                                                                                                                                                                                                                 342
                                                                                                                                  220
                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                  282
                                                                                                                                                                                                                                                                                                                                                                                                                                                222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                20
RESULT 2
US-09-799-451-691
; Sequence 691, Application US; Patent No. 6783969
; GENERAL INFORMATION:
APPLICANT: Tang, Y. Tom
APPLICANT: Tang, Y. Tom
APPLICANT: Goodrich, Ryle
APPLICANT: Goodrich, Ryle
APPLICANT: Ren, Feiyan
APPLICANT: Zhang, Jie
APPLICANT: Zhang, Jie
APPLICANT: Wang, Jian-Rui
APPLICANT: Wang, Jian-Rui
APPLICANT: Wang, Jian-Rui
APPLICANT: Wang, Jian-Rui
APPLICANT: Man, Yunqing
APPLICANT: Yamazaki, Victo
APPLICANT: Wang, Rui-hong
APPLICANT: Wang, Zhiwei
                                                                                                                                                                     8 8 8
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                    ঠ 유
                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                    8 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   성 함
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                   뮍
                                                                                                                                                                                                                                                                                                                                                        뫄
                                                                                                                                                                                                                                                                                                                                                                                    망
                                                                                                                                                                                                                                                                                                                                                                                                                                                   망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                           1669
                                                                                                                                                                                                                          1609
                                                                                                                                                                                                                                                          1549
                                                                                                                                                                                                                                                                                         1489
                                                                                                                                                                                                                                                                                                                          1429
                                                                                                                                                                                                                                                                                                                                                          1369
                                                                                                                                                                                                                                                                                                                                                                                         1309
                                                                                                                                                                                                                                                                                                                                                                                                                         1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1009
                                                                                                                                                            1729
                                                                                                                                                                         541
                                                                                                                                                                                                         521
                                                                                                                                                                                                                                         501
                                                                                                                                                                                                                                                                         481
                                                                                                                                                                                                                                                                                                                                         441
                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                         401
                                                                                                                                                                                                                                                                                                                                                                                                                                        381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       949
                                                                                                                                                                                                                                                                                                          461
Zhou, Ping
Goodrich, Ryle
Asundi, Vinod
Ren, Feiyan
Zhang, Jie
Xue, Aidong J.
Zhao, Qing A.
Zhao, Qing A.
Wang, Jian-Rui
Ma, Yunqing
Yamazaki, Victoria
Chen, Rui-hong
Wang, Zhiwei
                                                                                                                                                          GluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                         ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                          ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu 500
                                                                                                                                                                                                                                                                                         AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                          GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                                                                                                                         AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
                                                                                                                                                                                                                                                                                                                                                                                         ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                  IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                           US/09799451
                                                                                                                                                                           549
```

CICCACITO

1668

1608

540

480

1548

1428 440 1368 420 1308 400

460

1188 360 1128 340

ATCTCTCTCGGG

882

1176

360

1116

1056

320 996 300 936 280

1236

```
TENGTH: 2072
TYPE: DNA
CORGANISM: Homo sapiens
FEATURE:
NAME/KEY: CDS
LOCATION: (163)..(1743)
US-09-799-451-691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; APPLICANT: Wang, Dunrui
; APPLICANT: Yang, Yonghong
; APPLICANT: Wehrman, Tom
; APPLICANT: Ghosh, Reena
; APPLICANT: Drmanac, Radoje T.
; TITLE OF INVENTION: No. 6783969el Nucleic Aci
; TITLE OF INVENTION: Polypeptides
; FILE REFERENCE: 803
; CURRENT APPLICATION NUMBER: US/09/799,451
; CURRENT FILING DATE: 2001-03-05
; NUMBER OF SEQ ID NOS: 948
; SOFTWARE: pt FL_genes Version 2.0
; SEQ ID NO 691
; LENGTH: 2072
                                                                                                                                                                                                        음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment
Pred. No.:
Score:
                                                                                                                밁
                                                                                                                                                                                                                                                                     ર્
                                                                                                                                                                                                                                                                                              음 성 음
                                                                                                                                                                                                                                                                                                                                                            δ
            ð
                                   밁
                                                ঠ
                                                                            밁
                                                                                           S
                                                                                                                                      ち 음 성
                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-071-838-2 (1-549) x US-09-799-451-691 (1-2072)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      No.:
                                                                                                                       583
                                                                                                                                                                  523
                                                                                                                                                                                                                                                                                                 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scores:
              201
                                   703
                                                      181
                                                                                                 161
                                                                                                                                          141
                                                                                                                                                                                       121
                                                                                                                                                                                                             463
                                                                                                                                                                                                                                 101
                                                                                                                                                                                                                                                      403
                                                                                                                                                                                                                                                                                                                                            283
                                                                                                                                                                                                                                                                                                                                                                                                                                 163
                                                                                                                                                                                                                                                                                                                                                                                       223
                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                               41
                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                            21
LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                         AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                     LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu 140
                                                                                                                                                                                                                     GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                                                                 MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                                                                                       SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                                                                                                                    LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                 ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                                                            AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.77e-181
2827.00
95.6%
95.6%
94.8%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2072
525
0
2
2
2
1
                                                                                                                                                                                                                                120
                                                                                                                      642
                                                                                                                                                                                                            522
                                                                                                                                                                                                                                                     462
                                                                                                                                                                                                                                                                          100
                                                                                                                                                                                                                                                                                                 402
                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                          342
                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                          40
                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
 RESULT 3
US-08-253-155A-9
; Sequence 9, Application
                                                                                                      S
                                                             ঠ
                                                                                                                                밁
                                                                                                                                                8
                                                                                                                                                                                              S
                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                               δ
                                                                                     밁
                                                                                                                                                                       밁
                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뫄
                                                                                                                                                                                                                    1477
                                             1717
                                                                                      1657
                                                                                                                                1597
                                                                                                                                                                                                                                                                1417
                                                                                                                                                                                                                                                                                                           1357
                                                                                                                                                                                                                                                                                                                                                      1297
                                                                                                                                                                                                                                                                                                                                                                                                                                          1177
                                                                                                                                                                          1537
                                                                                                                                                                                                                                                                                                                                                                                                1237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1057
                                                                                                          521
                                                                                                                                                                                                481
                                                                                                                                                     501
                                                                                                                                                                                                                                          461
                                                                                                                                                                                                                                                                                    441
                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                           401
                                                                                                                                                                                                                                                                                                                                                                                                                     381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               763
                                            GluSerSerGlnPheProProGlyPhe
                                                                                                                                ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                              GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                 AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
                                                                                                                                                                                      ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                                                                                                                                                                                                                                     LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys 260
                                                                                                                                                                           CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                     AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                           GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                       ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
                                                                                                                                                                                                                                                                                                                                                                                               AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TrpAlaArgPheCygAgnArgPheValAgpThrTrpAlaArgAgpGluAgpThrValLeu 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCAACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
  US/08253155A
                                             1743
                                                                549
```

540 1656 1596

1536

1476

1416

440

460

1356

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
 S
                                문
                                                          S
                                                                                           뭐
                                                                                                                        S
                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COUNTER: COUNTER: COUNTER: COUNTER: CALOR COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII(text)
CURRENT APPLICATION NUMBER: US/08/253,155A
FILING DATE: 02-JUN-194
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Vincent, Matthew P.
REGISTRATION INDMBER: 36,709
REGISTRATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEPHONE: (617) 227-740
TELEPAX: (617) 227-740
TELEPAX: (617) 227-941
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 8201 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                       В
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                           US-10-071-838-2 (1-549) x US-08-253-155A-9 (1-8201)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-08-253-155A-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent No. 5691147
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Gyuris, Jeno
APPLICANT: Draetta, Giulio
TITLE OF INVENTION: CDK4 Binding
NUMBER OF SEQUENCES: 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Boston
STATE: MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                 1994
                                                                                             1934
                                                                                                                                                          1874
                                                                                                                                                                                                                    1814
                                                                                                                                                                                                                                                                                  1757
                                                                                                                                                                                                                                                                                                                                               1697
                                                             101
   121
                                                                                                                          81
                                                                                                                                                                                      61
                                                                                                                                                                                                                                                   4
                                                                                                                                                                                                                                                                                                               21
                              GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 120
                                                                                                                MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100
                                                                                                                                                                         ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                      SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                  LysTyrCluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
 LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                             ATGCTGGGAGAATGGGAGACATATAAGCACAGTAGCAAACTCATAGATCGAGTGTACAAG
                                                                                                                                                                                                                      GGAATCAACAGCAGCATTGATCGTTTTTGGCATTTTTGCATGAGACGGAGCTGCCTCCTGTG
                                                                                                                                                                                                                                                                                  AAGTATGACAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTGAGCCCGTT--- 1813
                                                                                                                                                                                                                                                                                                                                               ATGGACATGGTAGAGATGCAGATAGTTTGCAGGCACAGGAGCGGAAGGACATACTTATG
                                                                                                                                                                                                                                                                                                                                                               MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                                                                                                          60 State Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LAHIVE & COCKFIELD
                                                                                                                                                                                                                                                                                                                                                                                                                                           6.2e-134
2133.50
77.2%
71.5%
71.5%
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                         8201
408
33
58
72
                                                                                             1993
                                                                                                                                                          1933
                                                                                                                                                                                                                    1873
                                                                                                                                                                                       80
                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                               1756
                                                                                                                                                                                                                                                                                                                40
                                                                                                                                                                                                                                                                                                                                                                            20
                                                                     र्
                                                                                                          밁
                                                                                                                                  δ
                                                                                                                                                                 밁
                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                          멍
                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                        묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                             몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2054
                                                                                                                                                                         2954
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2114
410 OArgSerSerThrProCysProGlyGlyAlaValArgGluAspThrTyrProValGlyTh
                                                                                                                                                                                                                                                                                                                                                                                                                                                        341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             201
                                                                                                                                                                         ACACAGAGACCCCAAGGACTCCAGAGATGCAGCCAAACGCGAGCAAGGGTCCTTGGCACC 301:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACATCCACCACATCGACCTGGACGTGAGGACGACTCTCCGGAACCATGTCTTTAGG
                                                                oProGlyProProAlaArgPheProArgProIleTrpSerAlaSerProProArgAlaPr 410
                                                                                                                                                                                                                                                                                                GGGGCAGTCCCAGGAGCCACCCACCATGCCCCAACGGCTTCCCCCATGCCAGGCAGCACCAC 289:
                                                                                                                                                                                                                                                                                                                                                                                                                                              LysHisLeuArgAlaSerMetLysLysLysLeuThrArgLysGlnGlyAspLeuProProPro 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGCAGTGTGCCTCGTTAGGCTGCCTTCTCCGGAACCTGATTGACGGGATCTCTCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg 160
                                                                                                                          rArgProValProAlaSerArgGlyGlyLysThrLeuCysLysGlyAspArgGlnAlaPr 390
                                                                                                                                                                                                                                                                                                                                                            AAGCATCTTAGGGCCTCTACGAAGAAACTAACAAGGAAGCAAGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCACCCTGCGCCTGTGGGACGTGTATTTGGTGGAAGGAGAACAGGTGTTGATGCCAATA
                                                TCCAGGCCCACCAGCCCAGTTCCAGCGGCCCATTTGCTCAGCTTCCCCGGCCATGGGCATC 313:
                                                                                                                                                                                                                                     ACCCCTCCCTCTGGGATCAGCAGACTACAGGCGTGTCGTCAGTGTCAGACCACAGGGGCC 295:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGCÀCGTCTGCGGAÀCCAATTCTTCGÀTACCTGGGCCATGAACGATGÀCÀCCGTGCTC 2713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCCAGGATTCCACAGCCCAAATGGTGGGACAGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCACCGCCTTGTTCCTCCTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCAGCAGAAGCGCCTCATGAAGACATCCAGGTGTGGCCTG
                                                                                                                                                                                               ----AlaLysProGluGlnGlySerSerAlaSe 370
                                                                                                                                                                                                                                                                                                                                                                                                                           2773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2473
                                                                                                               3073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2173
                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          280
```

Alignment Scores: Pred. No.: 344.00 Matches: Score: Percent Similarity: 40.2% Conservative: Percent Similarity: 15.5% Minatches: 17 Matches: 17 Matches: 77 Matches: 10 Conservative: 77 Matches: 207 Matches: 2	Db 3194 Tchecontrictcheconscientedeachactric 2253 Oy 450 udlTrphanserMetProArgLeubaptaloudyProTrpPhear 470 Db 3254 GAGTGGAAGTCCATGCGAACGACCTCGATATAGGGGCCCTTGGTTCC 3313 Oy 470 gifaTyrAppheArgGInserCyTTpPhaltAgAlaileserGinGluagGInleuhl 490 Db 314 CATTATGATTTCAACGAACTGCTGGTGCGATACCGAGGGCCCTTGGTTCC 3313 Oy 470 gifaTyrAppheArgGInserCyTTpPlaltAgAlaileserGinGluagGInleuhl 490 Db 314 CATTATGATTTCAACGAACTGCTGGTGCGATACCGAGGGCCGTGGCGTGCGATACCGAGGGTGGCGTGGGGTGCGATACCGAGGGTGGGGTGGGGTGGGGTGGGGTGGGGTGGGGTGGGGTGGGG	Db 3134 TCGTTTTTCCACGCCCTGTCCTGGTGGGGCTGTCCGGGAAGACACGTACCCTGTGGGCAC 3193 Qy 430 rGlnGlyValProSerProAlaLeuAlaGlnGlyGlyProGlnGlySerTrpArgPheLe 450
B & & & & & & & & & & & & & & & & & & &	8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2 8 2	d dd
uMetProIleThrArglleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerAr ::: ::		25 GlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg-SerTyrAsnAs 44

ð

S 밁 S

밁

```
APPLICANT: Wang, Jian-Rui
APPLICANT: Wang, Dunrui
APPLICANT: Wang, Dunrui
APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. 6743619el Nucleic Aci
TITLE OF INVENTION: Polypeptides
FILE REFERENCE: 802
CURRENT APPLICATION NUMBER: US/09/774,528
CURRENT FILING DATE: 2001-01-30
NUMBER OF SEQ ID NOS: 441
SOFTWARE: pt_FL_genes Version 2.0
SEQ ID NO 336
LENGTH: 1823
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 5
US-09-774-528-336
; Sequence 336, Application US/09774528
; Patent No. 6743619
                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                                                                                                                                         APPLICANT:
                                                                                                                                                                                                                                                                                                                      APPLICANT:
FEATURE:
NAME/KEY: CDS
LOCATION: (136)..(1476)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CysAlaPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuAlaProCysTrpGlnAlaGluHisProAlaGluArgValArgSerAlaPheAlaAla 508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyValProSerProAlaLeuAlaGlnGlyGlyProGlnGlySerTrpArgPheLeuGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       heProArgProIleTrpSer-------AlaSerPro-ProArgAlaProArg--- 411
                                                                                                                                                                                                                                                                                                                  Ren, Feiyan
Zhang, Jie
Zhang, Qing A.
Yang, Yonghong
Xue, Aidong J.
Wehrman, Tom
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tang, Y.
Tang, Y.
Tou, Ping
Th, Ryle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCAGGCCCAGAAGGAGCAGCGGAA---ACAGATGAAGGGGGAGAGGGCAGCTGGAGAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGCGAACACCTCATTCAGCTGCGGCGCGCTGGCAGGAGACCCG-----GGGTGAGCT 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SerSerThrProCysProGlyGlyAlaValArgGluAspThrTyrProValGlyThrGln 431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGAGACCATCGAGC-----GACTGCGGAGCCTCAGCCCCAAGATCA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    uPro-ProProAlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerA 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGTGCCCCC 1470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCAGCCCCAAATCAAGCCATGGTGGTGGCCGCTGCAGGAGATGCATGTCCCCCCACAGCA 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TyrAspPheArgGlnSerCys-----TrpValArgAlaIleSerGlnGluAspGln 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGTCC-----CCGGCCTGCCCTACAACCTTCACCATCCATCCGCCTGCCCCTAGA--- 1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rgGlyGlyLysThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgP 397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProSerThrAspSerAspGlnGlyThrProPheArgAlaArgAspGluGlnPro----- 526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TrpAsnSerMetProArgLeuProThrAspLeuAspValGluGlyProTrpPheArgHis 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ----AGGCCTTTCTGGTCCAGGAGGTGGTGGAGTTGCCCCGTGACAGAGCGCCAGATTGA 1143
                                                                                                                                                                                                                                                                                                                                                                                                                                 Liu, Chenghua
Asundi, Vinod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               - TGCCCCCCTCCCTGGCTCCAAAGCCAAGCCCAAGCCACCCAA 1344
                                                                                                                                                                                                                                              Acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    451
                                        밁
                                                                   δ
                                                                                                               밁
                                                                                                                                                  δ
                                                                                                                                                                                        밁
                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-071-838-2 (1-549) x US-09-774-528-336 (1-1823)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-774-528-336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 322
                                                                                                                                                                                                                                                                                                                                           733
                                                                                                                                                                                                                                                                                                                                                                             210
                                                                                                                                                                                                                                                                                                                                                                                                                    673
                                                                                                                                                                                                                                                                                                                                                                                                                                                       190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  553 CACCGTCAATTCCCTCTGCACGAGATGTTTGTGTCGCCTCAGGGCCACGGGCAGCAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           154 GAGGACCTGGTGCAGCCTCCCGAGCTGCAGGATGACTCCAGCTCCTTGGGGGTCCGACTCA 213
       306
                                                                                                                                                                                                                         250 ThrMetGlyHisGlnAspLysLysAspLeuCysGlyGlnCysSerProLeuGlyCysLeu 269
                                                                                                                                                                                                                                                                                                      230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  214 GAGCTCAGCGGGCCTGGCCCATATCGC------CAGGCCGACCGCTATGGATTC 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16
   LysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyProTrpAlaArgPheCys 325
                                                                                                                                                                                                                                                                                                  GlyThrValGlnGlyLeuGlnAspGlnGlnGluHisValValAlaThrSerGlnProLys 249
                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuSerHisIleAlaAlaLeuPheLeuLeuTyrLeuProGluGluAspAlaPheTrpAla 209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TICCTGCAGGTGCTCAAGGCCTACACCCTGTATCGACCGGAGCAGGGCTACTGCCAGGCC 672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuLeuHisIleLeuLeuAlaTyrGluGluTyrAsnProGluValGlyTyrCysArgAsp 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SerGlyThrLeuArgLysHisIlePhePheArgAspArgTyrGlyThrLysGlnArgGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGCTGGCAGAG---GCCCCTGGAGACCCACAGTGGATGGAGACCATTGGCAGGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IleMetLysGluLysGlyLysArgSerSerGluHisIleGlnArgIleAspArgAspVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Arg------LygLeuIleAspArgAlaTyrLysGlyMetProMetAsnIleArgGlyPro 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -----CGGGAGATGAAGTGGGTGGAGATGACCTCGCACTGGGAGAAAACCATGTCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IleSerArgLysSerLysTrpValAspMetLeuGlyAspTrpGluLysTyrLysSerSer 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ValHisGluThrGluLeuProProLeuThrAlaArgGluAlaLysGlnIleArgArgGlu 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----LysGlyProLysProPheArgSerTyrAsnAsnAsnValAspHisLeuGlyIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GluaspIleIleMetLysTyrGlu---LysGlyHisArgAlaGlyLeuProGluasp---
                                                                                                                                                                                                                                                                                                                                           CTGGTGCAGATCTGT-----GAGGTCTACCTCCCTGGGTACTACGGGCCCCAC---
                                                                                                                                                                                                                                                                                                                                                                           LeuValGlnLeuLeuAlaSerGluArgHisSerLeuGlnGlyPheHisSerProAsnGly 229
                                                                                                                                                                                                                                                                                                                                                                                                                  CAGGGGCCCGTGCTGCTGCTCATGCACCTGCCCCAGAGGAGGCCTTCTGGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGTACAAGAAGGTAAAGATGCAGTGCCGGÁAAGGCATCCCGTCTGCCCCTGCGCGCCCGA 435
                                                                                                           CCCGAGTGGTTCCTGTGCCTCTTCGCCCGCTCCCTTCCCCCACAGTGCTGCGTGTC
                                                                                                                                                                                        CTGCTTCCGCACGTGCACAAGCACCTGCAGCAGGTGGGCGTCGGACCCCTGCTGCTACCTG
                                                                             TrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIleThrArgIleAlaPhe
                                                                                                                                                                                                                                                                   ----ATGGAGGCTGTGCGGCTGGACGCCGAGGTGTTCATGGCCCTGCTGCGG----CGG
                                            TGGGATGCCTTCCTCAGTGAGGGTGC-CAGAGTACTGTTCCG-------
                                                                                                                                                  -----IleArgIleLeuIleAspGlyIleSerLeuGlyLeuThrLeuArgLeu 285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.2e-13
337.00
36.2*
25.3*
11.3*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1823
157
68
231
167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 33
                                                                                                                     951
                                                                                                                                                                                              891
                                                                                                                                                                                                                                                                     831
                                                                                                                                                                                                                                                                                                                                               780
```

밁 δ В S 밁 S 밁 ঠ 밁

밁 ફ 밁 δ 밁 र्

```
RESULT 6
US-10-120-988-336
Sequence 336, Application US/10120988
PATENT NO. 6919193
GENERAL INFORWATION:
APPLICANT: Tang, Y. Tom
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1458
                                                                                                                                                      1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1038
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                385
                                                                                                                                                      GGG 1783
                                                                                                                                                                                               Gly 548
                                                                                                                                                                                                                                            GTACCAAAGCCAGCACCAAAGGAGTCAGGGAAGGGGTTGGCTGAGTCAAGGGACCCCAGA 1780
                                                                                                                                                                                                                                                                                   AlaProThrSerGlyProCysLeuCysGlyLeuHisLeuGluSerSerGlnPheProPro 547
                                                                                                                                                                                                                                                                                                                              AGAGTGGGGCACGTGAGGACCCATGGAACCGTCCTGGTGCCCAGGCCCTCACAA-----
                                                                                                                                                                                                                                                                                                                                                                                                                   GAAGGAGG-AGGTCCTCCGTGGTACATACTGGGTCAGGCACTAGCATGGAGGAGGGTCAC 1666
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GluArgValArgSerAlaPheAlaAlaProSerThrAspSerAsp-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAla 499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGCTGATGCCAGCCCGGCAATAGGCACCGCACTTTACTCTTGGGACTCGGGGACTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTGGACACCCGCTTCTGAGAGGACCATGGACTTAGTGTCCCCCAGTCTCAATTGCCTGA 1517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ProThrAspLeuAspValGluGlyProTrp-----------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATCGAGGGGCCCCCAGGCCCCAACGAGG------CTCCACCTCCTT 1457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGACCCGGGCAAGAC---TTTCCATGGGCTCCTGACTCGGGCCCGGGGGCC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGAGGTGCCTCGGATTGTGGTGCAGCCCCCCGGAGGAGCCCAGACCACCGCGGCGGAAACC 136:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ProProAlaArgPhe------ProArgProIleTrpSerAlaSerProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGTGCACAGCGTGGTGCTGTCAGAGCGGGACCTGCAGCGGGAGATCAAGGCCCAGCTGGC 1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyAspArg-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTGGGAGCCCTTCGAGCCATCCCCCCCCGCGCAGCTGCAGGAGGAGGCCTTCATGTCACA 1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLysThrLeuCysLys 384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCGAGG------GGCCTGCCCTGGCCTCGTGGA-----GAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerMetLysLysLeuThrArgLysGlnGlyAspLeuPro---ProProAlaLysProGlu 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AlaGlnGlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeu 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeu 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGGGGCCCAAGCCATCTTTGAGGCCCAGCAGCTGGCAGGAGTGCGACGAGGCGCCAAGCC 1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----AlaProArgSerSerThr-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAGCTGCCCGATTCCGCGCCGGGACCCCCGGCCCCG-----GCCACAGGTCCGCCTCGC 1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeuLysHisLeuArgAla 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -GCTGACACTGGTGCGCCTGGCGCTGGG------
                                                                                                                                                                                                                                                                                                                                                                     -----GlnGlyThrProPheArgAlaArgAspGluGlnProCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----PheArgHisTyrAspPheArgGlnSerCysTrp 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -ProCysProGlyGlyAla-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -----CCTTCCTGGCAAGGACCAGGCAGTGGG 1607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----GlnAlaProProGly 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACTGCAGAGCA 1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1415
                                                                                                                                                                                                                                                                                                                                                                                                                                                              514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/10/120,98
CURRENT FILING DATE: 2002-04-11
PRIOR APPLICATION NUMBER: 09/774,528
PRIOR FILING DATE: 2001-01-30
NUMBER OF SEQ ID NOS: 441
SOPTWARE: pt FL_genes Version 2.0
SEQ ID NO 336
LENGTH: 1823
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: CDS
LOCATION: (136)..(1476)
                                                      5
                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                         밁
                                                                                                        밁
                                                                                                                                          $
                                                                                                                                                                                        吊
                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-071-838-2 (1-549) x US-10-120-988-336 (1-1823)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-120-988-336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. 6919193el Nucleic Acids
TITLE OF INVENTION: Polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILE REFERENCE: 802CON
                                                                                                                                                                                             553
                                                                                                                                                                                                                                                                                   496
                                                                                                                                                                                                                                                                                                                                                                       436
                                                                                                                                                                                                                                                                                                                                                                                                                                                              376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 154 GAGGACCTGGTGCAGCCTCCCGAGCTGCAGGATGACTCCAGCTCCTTGGGGGTCCGACTCA 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72
                                                      LeuSerHisIleAlaAlaLeuPheLeuLeuTyrLeuProGluGluAspAlaPheTrpAla 209
                                                                                                                                 LeuLeuHisIleLeuLeuAlaTyrGluGluTyrAsnProGluValGlyTyrCysArgAsp
                                                                                                                                                                                                                                                                                                                     IleMetLysGluLysGlyLysArgSerSerGluHisIleGlnArgIleAspArgAspVal 149
                                                                                                                                                                                                                                                                                                                                                                       TGCTGGCCCCTGTTGTGTGGGGCCCCATGTGTGCCCAGAAGAACAGCCCTGGCACCTATCAG
                                                                                                                                                                                                                                                                                                                                                                                                              MetTrpSerValLeuLeuAsnIleGluGluMetLysLeuLysAsnProGlyArgTyrGln 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----LysGlyProLysProPheArgSerTyrAsnAsnAsnValAspHisLeuGlyIle 51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GluAspIleIleMetLysTyrGlu---LysGlyHisArgAlaGlyLeuProGluAsp---
                      CAGGGGCCCGTGGCTGCTGCTCATGCACCTGCCCCAGAGGACGCCTTCTGGTGC
                                                                                                                                                                                               CACCGTCAATTCCCTCTGCACGAGATGTTTGTGTCGCCTCAGGGCCACGGGCAGCAGGGG
                                                                                                                                                                                                                                                                                   GAGCTGGCAGAG---GCCCCTGGAGACCCACAGTGGATGGAGACCATTGGCAGGGACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGGTACAAGAAGGTAAAGATGCAGTGCCGGAAAGGCATCCCGTCTGCCCCTGCGCGCCCGA 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Arg-----LysLeuIleAspArgAlaTyrLysGlyMetProMetAsnIleArgGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTGGGGGCAGCTCAGCAGAGCCAGGGCCGGGCCACCCGACCTGCAGACCTCATCCGCCAA 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ValHisGluThrGluLeuProProLeuThrAlaArgGluAlaLysGlnIleArgArgGlu 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGCTCAGCGGGCCTGGCCCATATCGC-------CAGGCCGACCGCTATGGATTC 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Goodrich, Ryle
Liu, Chenghua
Ren, Feiyan
Wang, Dunrui
                                                                                                                                                                                                                                      SerGlyThrLeuArgLysHisIlePhePheArgAspArgTyrGlyThrLysGlnArgGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----CGGGAGATGAAGTGGGTGGAGATGACCTCGCACTGGGAGAAAACCATGTCCCGG 375
                                                                                                           CTCCTGCAGGTGCTCAAGGCCTACACCCTGTATCGACCGGAGCAGGGCTACTGCCAGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.2e-13
337.00
36.2%
25.3%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1823
157
68
231
167
                                                                                                                                                                                                                                        169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     109
                                                                                                                                                                                             612
                                                                                                                                                                                                                                                                                   552
                                                                                                                                                                                                                                                                                                                                                                       495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
S
```

δ 밁 ð 밁 δ 밁 á 밁 S 밁 S 밁 ð 밁 Ś 밁 δ 밁 δ

र् 밁

밁 성 함 δ 밁 δ 밁 S 용

밁 S 밁

```
8
S
                        밁
                                                                        밁
                                                                                               δ
                                                                                                                        밁
                                                                                                                                            5
                                                                                                                                                                      밁
                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                        1416
                         1578
                                                                         1518
                                                                                                                        1458
                                                                                                                                                                                                                       1362
                                                                                                                                                                                                                                                                      1302
                                                                                                                                                                                                                                                                                                                       1242
                                                                                                                                                                                                                                                                                                                                                                      1188
                                                                                                                                                                                                                                                                                                                                                                                                                      1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1038
                                                480
                                                                                                 469
                                                                                                                                                459
                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                               415
  500
                                                                                                                                                                                                 439
                                                                                                                                                                                                                                                                                                                                               409
                                                                                                                                                                                                                                                                                                                                                                                             393
                                                                                                                                                                                                                                                                                                                                                                                                                                             385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          250
 GluArgValArgSerAlaPheAlaAlaProSerThrAspSerAsp--
                                                ValArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAla
                                                                                                                                                                       CATCGAGGGCCCCCAGGCCCCAACGAGG------CTCCACCTCCTT
                                                                                                                                                                                                                      CCAGACCCGCGCAAGAC---TTTCCATGGGCTCCTGACTCGGGCCCGGGGGCCCC---
                                                                                                                                                                                                                                                                      TGAGGTGCCTCGGATTGTGGTGCAGCCCCCGGAGGAGCCCAGACCACCGCGGCGAAAACC
                                                                                                                                                                                                                                                                                                                     CGGGGCCCAAGCCATCTTTGAGGCCCAGCAGCTGGCAGGAGTGCGACGAGGCGCCAAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLysThrLeuCysLys
                                                                                                                                                ProThrAspLeuAspValGluGlyProTrp-----
                                                                                                                                                                                              AlaGlnGlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeu
                                                                                                                                                                                                                                                                                                                                                                                             ProProAlaArgPhe----
                                                                                                                                                                                                                                                                                                                                                                                                                      GGTGCACAGCGTGGTGTCAGAGCGGGACCTGCAGCGGGAGATCAAGGCCCAGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyAspArg-----GlnAlaProProGly 392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTGGGAGCCCTTCGAGCCATCCCCCCCCGCGCAGCTGCAGGAGGAGGACCTTCATGTCACA 1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCGAGG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SerMetLysLysLeuThrArgLysGlnGlyAspLeuPro---ProProAlaLysProGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeuLysHisLeuArgAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyProTrpAlaArgPheCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGGATGCCTTCCTCAGTGAGGGTGC-CAGAGTACTGTTCCG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCGAGTGGTTCCTGTGCCTCTTCGCCCGCCCTGCCCTTCCCCACAGTGCTGCGTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ThrMetGlyHisGlnAspLysLysAspLeuCysGlyGlnCysSerProLeuGlyCysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyThrValGlnGlyLeuGlnAspGlnGlnGluHisValValAlaThrSerGlnProLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuValGlnLeuLeuAlaSerGluArgHisSerLeuGlnGlyPheHisSerProAsnGly
                                                                         TGGCTGATGCCAGCCCGGCAAATAGGCACCGCACTTTACTCTTGGGACTCGGGGACTTGG
                                                                                                -----PheArgHisTyrAspPheArgGInSerCysTrp
                                                                                                                         CCTGGACACCCGCTTCTGAGAGGACCATGGACTTAGTGTCCCCCAGTCTCAATTGCCTGA
                                                                                                                                                                                                                                                                                                                                                                       CCAGCTGCCCGATTCCGCGCCGGGACCCCCGCCCCG-----GCCACAGGTCCGCCTCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----GCTGACACTGGTGCGCCTGGCGCTGGG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIleThrArgIleAlaPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ----ATGGAGGCTGTGCGGCTGGACGCCGAGGTGTTCATGGCCCTGCTGCCGG---CGG
                                                                                                                                                                                                                                              -----ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----IleArgIleLeuIleAspGlyIleSerLeuGlyLeuThrLeuArgLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGCTTCCGCACGTGCACAAGCACCTGCAGCAGGTGGGCGTCGGACCCCTGCTGTACCTG
                                                                                                                                                                                                                                                                                            ----ProCysProGlyGlyAla------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ----GAGGTCTACCTCCCTGGGTACTACGGGCCCCAC---
                                                                                                                                                                                                                                                                                                                                              ----AlaProArgSerSerThr------
                                                                                                                                                                                                                                                                                                                                                                                             -ProArgProIleTrpSerAlaSerProProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -GGCCTGCCCTGGCCTCCTGGA----GAC
                         CCTTCCTGGCAAGGACCAGGCAGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -CACTGCAGAGCA
                                                 499
                                                                                                                         1517
                                                                                                                                                  468
                                                                                                                                                                        1457
                                                                                                                                                                                                 458
                                                                                                                                                                                                                         1415
                                                                                                                                                                                                                                                                      1361
                                                                                                                                                                                                                                                                                                                       1301
                                                                                                                                                                                                                                                                                                                                                                       1241
                                                                                                                                                                                                                                                                                                                                                                                              408
                                                                                                                                                                                                                                                                                                                                                                                                                      1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            345
                                                                         1577
                                                                                                                                                                                                                                              438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         249
                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                               414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
  밁
                 S
                                              밁
                                                                       δ
                                                                                                 밁
                                                                                                                   5
                                                                                                                                                밁
                                                                                                                                                                     S
                                                                                                                                                                                                 밁
                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                              Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Human US-09-949-016-2139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 7
US-09-949-016-2139
                                                                                                                                                                                                                                                                                                                                                                       Score:
                                                                                                                                                                                                                                                                                                                                                                                  Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1608
                                                                                                                                                                        152
                                                                                                                                                                                                                       132
  330
                         212
                                                  270
                                                                                                                         172
                                                                                                                                                  150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     515
                                                                                                                                                                                                 90
                                                                                                                                                                                                                                                30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gly
  AAACTCTTCTCAGGCCCTAAACATGCCATG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              မှ
မှ
```

```
FIFTLE OF INVENSION:
FILE REFERENCE: CLOOL307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-337,768
PRIOR APPLICATION NUMBER: 60/231,768
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOPTWARE: FREESEQ for Windows Version 4.0
SEQ ID NO 2139
LENGTH: 1925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-071-838-2 (1-549) x US-09-949-016-2139 (1-1925)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2139, Appli
Patent No. 6812339
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     113 ValLeuLeuAsnIleGluGluMetLysLeuLysAsnProGlyArgTyr---GlnIleMet 131
                                                       CAGATCACAGCTTTACTCCTCATGTATATGAACGAGGAAGATGCCTTCTGGGCCCTGGTC
                                                                                 HisIleAlaAlaLeuPheLeuLeuTyrLeuProGluGluAspAlaPheTrpAlaLeuVal
                                                                                                                                                                                       HisIleLeuLeuAlaTyrGluGluTyrAsnProGluValGlyTyrCysArgAspLeuSer
                                                                                                                                                                                                                                                                                                                                                                                                    LysGluLysGlyLysArgSerSerGluHisIleGlnArgIleAspArgAspValSerGly 15:
GlnLeuLeuAlaSerGluArgHisSerLeuGlnGlyPheHisSerProAsnGlyGlyThr 231
                                                                                                                                                                                                                                                                                           ThrLeuArgLysHisIlePhePheArgAspArgTyrGlyThrLysGlnArgGluLeuLeu 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTAGCACTCAAACTTGCCCAGGAGCGAGCTGAAATAGTTGCTAAATATGACAGAAAATTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTACCAAAGCCAGCACCAAAGGAGTCAGGGAAGGGGGTTGGCTGAGTCAAGGGACCCCAGA 1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAGGAGG-AGGTCCTCCGTGGTACATACTGGGTCAGGCACTAGCATGGAGGAGGGTCAC
                                                                                                                                                        CATGTGCTTGCTGCCTATTCTATTATAACACGGAAGTCGGGTATTGTCAGGGGATGAGC
                                                                                                                                                                                                                                                              ACATTTCGGGACCACATTATGTTTAGAGACAGATATGGTGTTAAGCAACAATCCTTATTC
                                                                                                                                                                                                                                                                                                                                                             AAACACAGAGCACGGGGCTGTTCACCTGACATCAGACAAATAGACCTGGATGTCAACCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AlaproThrSerGlyProCysLeuCysGlyLeuHisLeuGluSerSerGlnPheProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAGTGGGGCACGTGAGGACCCATGGAACCGTCCTGGTGCCCAGGCCCTCACAA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----AlnGlyThrProPheArgAlaArgAspGluGlnProCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/09949016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.59e-13
332.50
39.6%
26.8%
11.1%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ASSOCIATED OF DETECTION AND USES THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1925
119
57
135
133
                                                       329
                                                                                                                                                                                                                                                                                                                                                             149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               547
                                                                                                         211
                                                                                                                                                          269
                                                                                                                                                                                                                                                            209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1666
                                                                                                                                                                                                            191
```

```
GluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLysThrLeuCys 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCGCAGTTACCGTCCCAGGTCCTGCCGAGGTGCGGGTGTCAAACGTGCGGCCAAAGATG
                                                                                                                                                                                                                                      la-----ProSerThrAspSerAspGlnGlyThrProPheArgAlaArgAspG 524
                                                                                                                                                                                                                                                                                                                  lnLeuAlaProCysTrpGlnAlaGluHisProAlaGluArgValArgSerAlaPheAlaA
                                                                                                                                                                                                                                                                                                                                                                   ATCAGGAAGGAGTTTGTGCCCAAATGGAATAAACCGTCAGACGTCTCAGCTACAGAGAGA
                                                                                                                                                                                                                                                                                                                                                                                                              heArgGlnSer---Cys------TrpValArgAlaIleSerGlnGluAspG 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATCACGCAGCTGCCAACCAAAATAGCAA-------CGCCACTTCAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rMetProArgLeuProThrAspLeu-AspValGluGlyProTrpPheArgHisTyrAspP 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATGAGGCAGATTTTCAAAGAAAACTCCCATCGGGTCCACAGGACAGTTCCAGGCAATAT 830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   oSerProAlaLeuAlaGlnGlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSe 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCGAGAGAGCACAGCCGCCAAGACGGAAATCGGTGGAGGAGGAGGAGCAAAAAGCTTAAA 770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sProGlyGlyAlaValArgGluAsp-----ThrTyrProValGlyThrGlnGlyValPr 434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCGGGGCGCCCACAGGAGGACGAGGACTCCCCGCACCCCCAGAGCAGGACCGGGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACGGACAGAGGAGCGTG-----ĠĠĊCGGĊĊĠAĠĊĊĊĠĊTGGĊĊAGCGGCAGGAGGAAG 650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LysGlyAspArgGlnAlaProProGlyProPro-AlaArgPhePro----------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGAAGCCCTTGGGGCAGCTTCCACCTGAACTTCAGTCTTGGGGCGTCCATCACTTGAGC 596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAGAACTAAAGCGGGCAAAGTTAGACCTTCCAGAACCTGGTAAAGAGGATGAATATCCA 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LysLysLeuThrArgLysGlnGlyAspLeuProProProAlaLys------Pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGGCAAAGGATTTTTTCTTTGAAGATGATTTTGTGATAGAGCAACTTCAGATTTCTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TrpAlaArgAsp------GluAspThrValLeuLysHisLeuArgAlaSerMet 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GluGlyGluGlnAlaLeuMetProIleThrArgIleAlaPheLysValGlnGlnLysArg 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyHisGlnAspLysLysAspLeuCysGlyGlnCysSerProLeuGlyCysLeuIleArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----ArgProlleTrpSerAlaSerProProArgAlaProArgSerSerThrProCy 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuThrLysThrSerArgCysGlyProTrpAlaArgPheCysAsnArgPheValAspThr 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IleLeuIleAspGlyIleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuVal 291
                                                                                                                                                                                                                                                                                -TGC---CAAATACACCATGGAAGGCAAAGGTCGAGCAGCGCACCCCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----TTTTTTCAGGAGACC
                                                                                                                                                                                                1040
                                                                                                                                                                                                                                                                                                                                                                     932
                                                                                                                                                                                                                                                                                980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Drmanac, Radoje T.
ITITLE OF INVENTION: No. 659962el Nucleic Acids and
ITITLE OF INVENTION: Polypeptides
FILE REFERENCE: 784CIP2B
CURRENT FILING DATE: 2000-07-19
PRIOR APPLICATION NUMBER: US/99/620,312D
CURRENT FILING DATE: 2000-04-25
PRIOR APPLICATION NUMBER: 09/552,317
PRIOR APPLICATION NUMBER: 09/488,725
PRIOR APPLICATION NUMBER: 09/488,725
PRIOR APPLICATION NUMBER: 09/488,725
PRIOR FILING DATE: 2000-01-21
NUMBER OF SEQ ID NOS: 1105
SOPTWARE: pt_FL_genes Version 1.0
SEQ ID NO 675
LENGTH: 3039
S
                                          밁
                                                                                S
                                                                                                                             밁
                                                                                                                                                              ঠ
                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-071-838-2 (1-549) x US-09-620-312D-675 (1-3039)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; LOCATION: (1)...(3039)
; OTHER INFORMATION: n = a,t,c
US-09-620-312D-675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Tang, Y. Tom
APPLICANT: Liu, Chenghua
APPLICANT: Asundi, Vinod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: CDS
LOCATION: (169)..(2502)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PEATURE:
NAME/KEY: misc_feature
                                            447
                                                                                                                             391
                                                                                                                                                                                                                                                                                                       271
                                                                                                                                                                                                                                                                                                                                                                                         220
                                                                                                                                                                                                                  331 GATGAGCCTGGCTCCÁGTCTGCCGGCGÁACTCCCCTCTGATGGAGGATGCTCCACAGAGG
                                                                                  63
                                                                                                                                                                         48
  83
                                                                                                                                                                                                                                                          36 ProLysProPheArgSerTyrAsnAsnAsnValAsp-----
                                                                                                                                                                                                                                                                                                                                             28 AlaGlyLeuProGlu------AspLysGly
                                                                                                                                                                                                                                                                                                                                                                                                                                  9
GlyAspTrpGluLys-----TyrLysSerSerArgLysLeuIleAspArgAla
                                                                                                                             CTGCGGTGGCAGGCCCACCTGGAGTTCACCCATAACCACGATGTGGGGGGATCTCACC---
                                                                                                                                                                                                                                                                                                                                                                                         ÁGCATATGGCCCCÁGGÁG-----ÁTCTTGGCCÁAGTÁCACGCAGÁÁGGAAGAGTCA 270
                                                                                                                                                                                                                                                                                                                                                                                                                      SerTrpTrpAlaGlnGluArgGluAspIleIleMetLysTyr---GluLysGlyHisArg
                                                                                  ArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAspMetLeu
                                                                                                                                                                                                                                                                                                  GCAGAGCAACCAGAGTTCTACTACGATGAGTTTGGTTTCCGTGTGTACAAGGAAGAAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zhou, Ping
Ma, Yunqing
Wang, Dunrui
Wang, Zhiwei
John Tillinghast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Asundi Vinod
Zhang, Jie
Ren, Peiyan
Chen, Rui-hong
Zhao, Qing A.
Wehrman, Tom
Xue, Aidong J.
Yang, Yinghong
Wang, Jingn-Rui
Zhou, Ping
                                                                                                                                                                     ------HisLeuGlyIleValHisGluThrGluLeuProProLeuThrAla 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4.97e-08
258.00
35.9%
24.1%
8.6%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  မ္
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3039
157
77
236
183
30
                                                                                                                                                                                                                                                                                                                                             35
                                                                                                                             447
                                                                                                                                                                                                                  390
                                                                                                                                                                                                                                                          47
                                                                                                                                                                                                                                                                                                                                                                                                                               27
```

ð

밁 S ₽ S 밁 श् 밁 ક 밁 ð 밁 δ 밁 र् 밁 S

364 477 402 312 292 393 272

밁

597 384

651

RESULT 8
US-09-620-312D-675
; Sequence 675, Application US/09620312D
; Patent No. 6569662

ક

981

S 밁

524 luGlnPro

AAGGCCCT

1048 526

유

Ś

밁 ð 밁 S 문 S 문 8 밁 S

454

밁

AC-----

```
1419
                                                                                                                                     1359
                                                                                                                                                                                                                1299
                                                                                                                                                                                                                                                                                            1246
                                                                                                                                                                                                                                                                                                                                                                      1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1015
                                                                                                                                                                           368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     311
                       393
                                                                                                                                                                                                                                                                                                                                346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99
ArgLeuThrLysThrSerArgCysGlyProTrpAlaArgPheCysAspArgPheValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ValGluGlyGluGlnAlaLeuMetProIleThrArgIleAlaPheLysValGlnGlnLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgIleLeuIleAspGlyIleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTGGAGGCACTCAAGGCCAAGAACATCAAGCAGACGGAACTGGTGGCTGACCTCCGGGA
                                                                                                                                                                                                                CATTGCAGACCAGGGCCAGCTCCTGGGGGGCCCGGCACCCTCACCAACCTCTCAGGTTGT 1358
                                                                                                                                                                                                                                                                                                                                                                      ATCCCGTCGCAGATGGAGGACGCGGAGCTGCTTCTGGGGGTGGCCATGCGGCTGGCCGGC 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGCTGATCCAGTCAGAGAACTCG------GCCTCCATCTTCAACACGCTATCGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACGAGGGCTCCCGGGTGCTGTTCCAGCTCÁCGCTGGGCATGCTGCACCTCAAGGAGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACGGCCTTCGCCAGCGTGGTGGACATCAAGCTGCTCCTGCGCATCTGGGACCTGTTTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACAAGCTGCTCCAGGAGCATGACATTGAGCTGTCCCTGATCACACTGCACTGGTTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetGlyHisGlnAspLysLysAspLeuCysGlyGlnCysSerProLeuGlyCysLeuIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyLeuGlnAspGlnGln------GluHisValValAlaThrSerGlnProLysThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuLeuTyrLeuProGluGluAspAlaPheTrp------AlaLeuValGln---Leu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GluGluTyrAsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGCTTCGCCAGCATGGGTAGCATCGGGGTGCCCCGCCTGCAGGGTGCTCCGGGCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PhePheArgAspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyr 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGACCATCGCTGCCAAGCAGATCGAGAAGGACCTGCTCCGCACCATGCCCAGCAACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SerSerGluHisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GluMetLysLeuLysAsnProGlyArgTyr---GlnIleMetLysGluLysGlyLysArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGGCCGGCATCCCACATGGCATGAGGCCACAGCTGTGGATGCGGCTCTCTGGGGCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TyrLysGlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGlu
                                                                                                                                       TCGCCGCAGGACCCAGCGAGGAAGTCCACCATCACTGCTCTTGCTCTTCGGGGAGGATGA 1418
                                                                                                                                                                           SerAlaSerArgProVal---------ProAlaSerArgGlyGly---
                                                                                                                                                                                                                                                                                            TCCCTCAC-CGATGTGGCCGT-----GGAGACTCAGCGCCGCAAGCTCCTGGCCTATCT 1298
                                                                                                                                                                                                                                                                                                                              SerMetLysLysLeuThrArgLysGlnGlyAspLeuProPro-------
                                                                                                                                                                                                                                                                                                                                                                                                          ThrTrpAlaArgAspGluAspThr------ValLeuLysHisLeuArgAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGTGTCCAGACTGACCAGCGGGTCCTGCGCCCACCTCATTGTCCAGTACCTGCCTCGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCCCCGCCTCCTACTTCAGCACC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuAlaSerGluArgHisSerLeuGlnGlyPheHisSerProAsnGlyGlyThrValGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGAAGAAGAGGAACTCTGAGCTGTCCTACCGCGAGATTGTGAAGAACAGCTCCAACGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           - TGGGACAAGATTGCCGTCTCCCTACCCCGCTCTGAGAAGCTCCGCTCCCTGGTG
                                                                                               -LysThrLeuCysLysGlyAspArgGlnAlaProProGly
                                                                                                                                                                                                                                                  -ProAlaLysProGluGlnGlySer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----ACCCTGCTG
                                                           1478
                                                                                                 392
                                                                                                                                                                                                                                                                                                                                                                                                            345
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1074
                         410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  157
                                                                                                                                                                                                                                                                                                                                  359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 9
US-09-620-312D-676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            믕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                       APPLICANT: Ma, Yunging
APPLICANT: Wang, Dunrui
APPLICANT: Wang, Dunrui
APPLICANT: Wang, Zhiwei
APPLICANT: John Tillinghast
APPLICANT: John Tillinghast
APPLICANT: Drmanac, Radoje T.
APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: POLYPEPTICES
FILE REPERENCE: 7984CIP2B
CURRENT APPLICATION NUMBER: US/09/620,312D
CURRENT APPLICATION NUMBER: US/09/620,312D
CURRENT APPLICATION NUMBER: 09/552,317
PRIOR APPLICATION NUMBER: 09/488,725
PRIOR APPLICATION NUMBER: 09/488,725
PRIOR FILING DATE: 2000-01-21
PRIOR FILING DATE: 2000-01-21
   NUMBER OF SEQ ID NOS: 1105
SOFTWARE: pt FL genes Version 1.0
SEQ ID NO 676
LENGTH: 2955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 676,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patent No.
                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Tang, Y. ....
APPLICANT: Liu, Chenghua
                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1908 GACGGAGGGGGTCACAGACCTCGTGCGAGGGACCCTCTGCCCGGCCCTTAAGGCCCTGTT 1967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1479 AGCCATCCTGCGCGTGGCACGCCACTTCCAGTG-----CACAGACCCCAAAAAACTGCAG 1532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 431
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   76, Application US/09620312D
6569662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGAACATGGACTGAAGAAGCCATCCCTGCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        laPro-----ThrSerGlyProCysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlnGlyValProSerProAlaLeuAlaGlnGlyGlyProGln-GlySerTrpArgPheLe 450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      heArg-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTTCGTGGAAGTCCTGGATGAGCGCAGCAAAGAGTACTCCATCGCGGGGGATGACTCGGT 1907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         uArgVal-ArgSer---AlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGAG-----CACTGCTGGGTGGGGGAGCTCAACGGCCTGCGAGGCTGGTTTCCAGCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAACACGGCCCTAACTCCTCCAACCCCCTTGGTGGGCCTGTGTTCACTGTGGCAGGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTGGTGAGTCGCCAGCTCCCTGGGCTGCT---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGACGACGAGCTGGGCTTCCGCAAGAACGACATCATCACAATCGTGTCTCAGAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACTCCAGACTATAGCATGGAGAGCCACCAGCGGGACCACGAGAACTACGTGGCGTGCTC 1685
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Zhang, Jie
Ren, Feiyan
Chen, Rui-hong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Asundi, v.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STYRASP---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACGCAGCCACCGGCGCCGAGCCAAGGCCCTGCTGGACTTTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----LeuAspValGluGlyProTrpPheArgHi 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    uGlnTrpAsn---SerMetProArgLeuProThrAsp----------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgSerSerThrProCysProGlyGlyAlaValArgGluAspThrTyrProValGlyThr 430
                                                                                                                                                                                                                                                                                                                                                                      Yang,
Wang,
                                                                                                                                                                                                                                                                                                                                              Zhou,
                                                                                                                                                                                                                                                                                                                                                                                                                             Zhao, Qing A.
Wehrman, Tom
                                                                                                                                                                                                                                                                                                                                                                                                            Xue, Aidong J.
                                                                                                                                                                                                                                                                                                                                                  , Yonghong
, Jian-Rui
, Ping
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PheArgGlnSerCysTrpValArgAlaIleSerGlnGluAs 487
                                                                                                                                                                                                                                      Acide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----AlaargaspGluGlnProCysa 528
                                                                                                                                                                                                                                      and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----ACC 1565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        461
```

δ

밁 ঠ 밁 S 밁 ঠ 밁 S 닭 δ 문 δ 밁 S 밁 S 문 ક 문 ક 밁 Ş 문 δ 밁 Ş 밁 ક 밁 δ 맑 δ

& 유

```
밁
                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                       밁
                   밁
                                      ð
                                                                          밁
                                                                                                     ð
                                                                                                                                     밁
                                                                                                                                                             8
                                                                                                                                                                                                 밁
                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: misc feature
LOCATION: (1)...(2955)
OTHER INFORMATION: n =
US-09-620-312D-676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-071-838-2 (1-549) x US-09-620-312D-676 (1-2955)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
ORCANISM: Homo sapiens
FEATURE:
NAME/KEY: CDS
LOCATION: (169)..(2418)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                   862
                                                                                                                                       742
                                                                                                                                                                                                                                                               622
                                                                                                                                                                                                                                                                                                                                                                                                                                                   448
                                                                                                                                                                                                                                158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ø
                                                                                            LeuLeuTyrLeuProGluGluAspAlaPheTrp------AlaLeuValGln---Leu
                                                                                                                                                                                                                        PhePheArgAspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyr
                                                                                                                                                                                                                                                           GAGACCATCGCTGCCAAGCAGATCGAGAAGGACCTGCTCCGCACCATGCCCAGCAACGCC
                                                                                                                                                       GluGluTyrAsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPhe
                                                                                                                                                                                                                                                                               SerSerGluHisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIle
                                                                                                                                                                                                                                                                                                                                                    GluMetLysLeuLysAsnProGlyArgTyr---GlnTleMetLysGluLysGlyLysArg
                                                                                                                                                                                                                                                                                                                                                                                CTGGCCGGCATCCCACATGGCATGAGGCCACACGCTGTGGATGCGGCTCTCTGGGGGCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyAspTrpGluLys------TyrLysSerSerArgLysLeuIleAspArgAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCAGAGCAACCAGAGTTCTACTACGATGAGTTTGGTTTCCGTGTGTACAAGGAAGAAGGT
                 CTCCCCGCCTCCTACTTCAGCACC---
                                            LeuAlaSerGluArgHisSerLeuGlnGlyPheHisSerProAsnGlyGlyThrValGln
                                                                            CTGCTGTTCCTGGAGGAGGAGGACGCCTTCTGGATGATGTCTGCCATCATCGAGGACCTG
                                                                                                                                     TGCTTCGCCAGCATGGGTAGCATCGGGGGTGCCCCGCCTGCGCAGGGTGCTCCGGGCCCTG
                                                                                                                                                                                                                                                                                                                       CAGAAGAAGAAGAACTCTGAGCTGTCCTACCGCGAGATTGTGAAGAACAGCTCCAACGAT
                                                                                                                                                                                                                                                                                                                                                                                                                TyrLysGlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                ----TGGGACAAGATTGCCGTCTCCCTACCCCGCTCTGAGAAGCTCCGCTCCCTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAspMetLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGCGGTGGCAGGCCCACCTGGAGTTCACCCATAACCACGATGTGGGGGATCTCACC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATGAGCCTGGCTCCAGTCTGCTGGCGAACTCCCCTCTGATGGAGGATGCTCCACAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ProLysProPheArgSerTyrAsnAsnAsnValAsp-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AlaGlyLeuProGlu-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCATATGGCCCCAGGAG------ATCTTGGCCAAGTACACGCAGAAGGAAGGAAGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SerTrpTrpAlaGlnGluArgGluAspIleIleMetLysTyr---GluLysGlyHisArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.04e-07
253.00
35.8%
24.6%
8.5%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a,t,c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ------Авр⊥увGlу
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2955
156
71
233
175
                                                                                                                                       801
                                                                                                                                                                                                                                                                                         157
                                                                                                                                                                                                                                                                                                                         621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        270
                                                                          861
                                                                                                                                                                   197
                                                                                                                                                                                                                                                           681
                                                                                                                                                                                                                                                                                                                                                    137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                47
                                                       á
δ
                         문
                                                                                       밁
                                                                                                             δ
                                                                                                                                                  밁
                                                                                                                                                                             Ś
                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뭐
                              1818
                                                                                                                                                     1704
                                                                                                                                                                                                                1645
                                                                                                                                                                                                                                                                                                                                     1536
                                                                                                                                                                                                                                                                                                                                                                                                  1476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1416 TGACCTGGAGGCÁCTCAÁGGCCAAGAACATCAAGCÁGACGGAACTGGTGGCTGACCTCCG 1475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1015
 526 roCysAlaPro-----ThrSerGlyProCysLeu 535
                                                                                                                       498
                                                                                                                                                                                                                                            469
                                                                                                                                                                                                                                                                                                                                                                    453
                                                                                                                                                                                                                                                                                                                                                                                                                                445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        271
                                                                                  AGCCAAGTTCGTGGAAGTCCTGGATGAGCGCAGCAAAGAGTACTCCATCGCGGGGGATGA 1817
                                                                                                                  oAlaGluArgVal-ArgSer---AlaPheAlaAlaProSerThrAspSerAspGlnGlyT
                                                                                                                                                                   nGluAspGlnLeuAlaProCysTrpGlnAlaGlu------HisPr
                                                                                                                                                                                                                                                                                                                                                                AsnSerMetProArgLeu-------ProThr-Asp------
                                                                                                                                                                                                                                                                                                                                                                                                                             GlySerTrp-----ArgPheLeuGlnTrp
                              CTCGGTGACGGAGGGGGTCACAGACCTCGTGCGAGGGACCCTCTGCCCCGGCCCTTAAGGC 1877
                                                                                                                                                     GAAGGACGAG-
                                                                                                                                                                                                             - CGGCACGACGACGAGCTGGGCTTCCGCAAGAACGACATCATCACAATCGTGTCTCA
                                                                                                                                                                                                                                            eArgHisTyrAsp---
                                                                                                                                                                                                                                                                           GTGCTCACGCAGCCACCGGCGCCGAGCCAAGGCCCTGCTGGACTTTGAG-----
                                                                                                                                                                                                                                                                                                                                    GGAGCTGACTCCAGACTATAGCATGGAGAGCCACCAGCGGGACCACGAGAACTACGTGGC 1595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGlnGlyGly----ProGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCGCCGCAGGACCCAGCGCAGGAAGTCCACCATCACTGCTCTGCTCTTCGG----GGAGGA 1415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProProArgAlaProArgSerSerThrProCysProGlyGlyAlaValArgGluAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlySerSerAlaSerArgProValProAlaSerArgGlyGlyLysThrLeuCysLysGly 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCCTCAC-CGATGTGGCCGT-----GGAGACTCAGCGCCGCAAGCT-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ArgLeuThrLysThrSerArgCysGlyProTrpAlaArgPheCysAspArgPheValAsp 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACGAGGGCTCCCGGGTGCTGTTCCAGCTCACGCTGGGCATGCTGCACCTCAAGGAGGAA 1134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ValGluGlyGluGlnAlaLeuMetProIleThrArgIleAlaPheLysValGlnGlnLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgileLeuileAspGlylleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeu 290
::: :: ||| ||||:::||| |||::::::
ACGGCCTTCGCCAGCGTGGACATCAAGCTGCTCCTGCGCATCTGGGACCTGTTTTTC 1074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyLeuGlnAspGlnGln-----GluHisValValAlaThrSerGlnProLysThr 250
                                                                                                                                                                                                                                                                                           -----LeuAspValGluGlyProTrpPh 469
                                                                                                                                                                                                                                                                                                                                                                                                GGAAGCCATCCTGCGCGTGGCACGCCACTTCCAGTGCACAGACCCCAAAAAACTGCAGCGT 1535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AspArgGlnAlaProProGlyProProAlaArgPheProArgProIleTrpSerAlaSer 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ĠĠĊĊŢĄŤĊŢĊĄŢŢĠĊĄĠĄĊĊĄĠĠĠĊĊĄĠĊŤ------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SerMetLysLysLeuThrArgLysGlnGlyAspLeuProProProAlaLysProGluGln 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCCCGTCGCAGATGGAGGACGCGGAGCTGCTTCTGGGGGGTGGCCATGCGGCTGGCCGGC 1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ThrTrpAlaArgAspGluAspThr-------ValLeuLysHisLeuArgAla 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGCTGATCCAGTCAGAGAACTCG------GCCTCCATCTTCAACACGCTATCGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACAAGCTGCTCCAGGAGCATGACATTGAGCTGTCCCTGATCACACTGCACTGGTTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MetGlyHisGlnAspLysLysAspLeuCysGlyGlnCysSerProLeuGlyCysLeuIle 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGTGTCCAGACTGACCAGCGGGTCCTGCGCCACCTCATTGTCCAGTACCTGCCTCGCCTG
                                                                                                                                                   -----CACTGCTGGGTGGGGGAGCTCAACGGCCTGCGAGGCTGGTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTGGGGGCCGGCACCCTCACCAACCTCTCAGGTTGT
                                                                                                                                                                                                                                         ---PheArgGlnSerCysTrpValArgAlaIleSerGl
                                                         -AlaArgAspGluGlnP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1358
                                                                                                                                                   1757
                                                                                                                                                                                  498
                                                                                                                                                                                                                                           485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1014
                                                                                                                     517
                                                                                                                                                                                                                                                                           1644
                                                                                                                                                                                                                                                                                                                                                                                                                                452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               954
                                                                                                                                                                                                                                                                                                                                                                    461
```

```
ð
                                                                                                                 밁
                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
               á
                                                밁
                                                                                                                                               Ś
                                                                                                                                                                                                             ર્ક
                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-071-838-2 (1-549) x US-09-248-796A-5457 (1-1083)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-248-796A-5457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-248-796A-5457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Keith Weinstock et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO CANDIDA.
TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.132
CURRENT FILING DATE: 1099-02-12
PRIOR APPLICATION NUMBER: US 60/074,725
PRIOR APPLICATION NUMBER: US 60/074,725
PRIOR APPLICATION NUMBER: US 60/096,409
PRIOR FILING DATE: 1998-02-13
PRIOR APPLICATION NUMBER: US 60/096,409
PRIOR FILING DATE: 1998-08-13
PRIOR PILING DATE: 1998-08-13
PRIOR SEQ ID NOS: 28208
SEQ ID NO 5457
LENGTH: 1083
TYPE: DNA
TYPE: DNA
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No. 6747137
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 5457,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: unsure LOCATION: (37)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Candida
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1878
                                                 421
                                                                                 197
                                                                                                                 361
                                                                                                                                                  177
                                                                                                                                                                                   307
                                                                                                                                                                                                                                                                                                                    187
                                                                                                                                                                                                                                                                                                                                                   118
                 217
                                                                                                                                                                                                                    157
                                                                                                                                                                                                                                                    247
                                                                                                                                                                                                                                                                                   137
                                                                                                                                                                                                                                                                                                                                                                                      127
                                                                                                                                                                                                                                                                                                                                                                                                                     101
                                                                                                                                                                                                                                                                                                                                                                                                                                                    73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  64 GluAlaLysGlnIleArgArgGluIleSerArgLysSerLys---TrpValAspMetLeu
GluArgHisSerLeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGly---Leu ::: |||:::::||| ||||
                                                 TTACTTATATACATGTCTGAAGAACAAGCATTTTGGGCGTTGAATGTTTTATGT-----
                                                                      PheLeuLeuTyrLeuProGluAgpAlaPheTrpAlaLeuValGlnLeuLeuAlaSer
                                                                                                                                    TyrGluGluTyrAsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeu 196
                                                                                                                                                                                   GCTGCATATCAATCACCTGAGGGAATTGAGAGG-----TTAAGAAGAGTATTGACAGCC
                                                                                                                                                                                                                                                                      ArgSerSerGluHi8IleGlnArgIleAspArgAspValSerGlyThrLeuArgLy8Hi8 156
                                                                                                                                                                                                                                                                                                                  ATGTATTTAGGATTAGAACACCAGGGTGAATATATTCAACTATTAGAAGAACATAAAGAC 246
                                                                                                                                                                                                                                                                                                                                                 GluGluMetLysLeuLysAsnProGlyArgTyr---GlnIleMetLysGluLysGlyLys 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ---GlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys--- 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACGCGCGCATTGGGGAACACGAANTGCCAACAAAATTGAAAATGTGGTTTGATTTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTGTTCGAACATGGACTGAAGAAGCCATCCCTGCTTG
                                                                                                                   TATTCTTGGAAAAATCCTGATGTTGGTTATTGTCAAGCTATGAATATAGTGGTGGCAGCA
                                                                                                                                                                                                                                                    AAGAAATCGTTTGCTATTGAAGAGATTGAAAAAGATTTGAATAGATCATTACCCGAGTAT 306
                                                                                                                                                                                                                                                                                                                                                                                    ATTCGAGTAGGATTACCAAATAGATTAAGAGGAGAAATATGGGAATTGACTTGTGGGTCG 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAACCGATGGACGAAATTTATCTTTGGTTAGAAAACCTTTA-----TTTTATAAACTT 126
                                                                                                                                                                                                                IlePhePheArgAspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAla 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/09248796A
                                                                                                                                                                                                                                                                                                                                                                                                                   ----GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIle 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      albicans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Identity of nucleotide sequences at the above locations are unkno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2.88e-07
238.00
47.1%
25.9%
8.0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1083
72
59
127
20
                                                                                                                   420
                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALBICAN
                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                  맑
                                         S
                                                                                 밁
                                                                                                                S
                                                                                                                                                  밁
                                                                                                                                                                              Ś
                                                                                                                                                                                                                  멹
                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; ORGANISM: Human US-09-949-016-1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 11
US-09-949-016-1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                   US-10-071-838-2 (1-549) x US-09-949-016-1620 (1-2456)
                                                                                                                                                                                                                                                                                                                                                                                                       Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: CL001307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-10-03

PRIOR APPLICATION NUMBER: 60/231,498

PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 1620
LENGTH: 2456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1620,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                       М
..
                  432
                                                                                  372
                                                                                                                                                    324
                                                                                                                                                                                                                     273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       763
                                                 77
                                                                                                                   57
                                                                                                                                                                                   37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         681233
                  CTTTGGGGAAGAATTGTTAATGAATGGGAAGATGTACGCAAAAAGAAGGAAAAGCAAGTT
                                                                                                                                                    AAGTCTTTAAGATCTGTAAATGGGTCAAGAAGAAACAGTGGC-----TCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Application US/09949016
                                                                                                                                                                                                                                                                                                                                  5.41e-06
226.00
42.9%
21.8%
7.6%
                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                    Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4.0
                                                                                                                                                                                                                                                                                                                      2456
78
75
182
22
```

```
314 LysThrSerArgCysGlyProTrpAlaArgPheCysAsnArgPheValAspThr 331
                                                                                                                                                                                 294 GluGlnAlaLeuMetProIleThrArgIleAlaPheLysValGlnGlnLysArgLeuThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    523 TTGGACCAAAAAGTATTTGAATCTTTGGTTCAGAATACCATGCCTATGCTTTGGGAACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     236 GlnAspGlnGln-----GluH1sValValAlaThrSerGlnProLysThrMetGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            475 ---GACAGAATAGTACCTGGGTATTATTCAAAA-----ACCATGTATGGAACTTTA
CAGACTGAAGATGAACATTCATATCTATAATTAAAGATTATTTTCATÄCT
                                                                                                                                                                                                                                                  TTGTCTTCAATGCCATTAGTTTTTGCATTCCGAATCCTTGATATATTTTTCATGCAAGGA
                                                                                                                                                                                                                                                                                                         IleAspGlyIleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGly
                                                                                                                                                                                                                                                                                                                                                                         ATCACCAAAAATGATATTCAATTATCAGTTGTTTCATTACCGTGGTTTTTATCATTATAC
                                                                                                                                                                                                                                                                                                                                                                                                                             GlnAspLysLysAspLeuCysGlyGlnCysSerProLeuGlyCysLeuIleArgIleLeu
                                                                                                                       CCAAAAACCTTATTTCAAGTTGCATTGGCTATTTTAAAGCAAAATGGAGAAGAACTTTTG
      816
                                                                                                                                                                                        313
                                                                                                                                                                                                                                                                                                                                                                             642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               522
                                                                                                                                                                                                                                                                                                               293
                                                                                                                                                                                                                                                                                                                                                                                                                                          273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     253
                                                                                                                          762
                                                                                                                                                                                                                                                  702
```

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF

LysProPheArgSerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGlu GAACTCCTGGCTAAACTGGAAGAACAGAATAGATTG---TTAGAAACGGATAGT-----AspIleIleMetLysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyPro 36 37 56

LysTrpValAspMetLeuGlyAspTrpGlu-----LysTyrLysSerSerArgLysLeu CTTGTGTCGAGTTCATCAGCCTCTAGCAACCTCAGTCACCTTGAAGAAGATTCTTGGATT LeuProProLeuThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSer 491 94 433 76

```
S
                                                                                                                                                                                                                              RESULT 12
US-09-270-767-12482
                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
   ; SOFTWARE: PatentIn Ver. ; SEQ ID NO 12482; LENGTH: 1887; TYPE: DNA; ORGANISM: Drosophila mel US-09-270-767-12482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                   APPLICANT: Homburge:
                                                                                                                                                                                                 Sequence 12482, Application Patent No. 6703491
                                                                                      APPLICANT: Homburger et al.

TITLE OF INVENTION: Nucleic acids and proteins of Drosophila
FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
                                                                                                                                                                                                                                                                            1251
                                                                                                                                                                                                                                                                                                                                      1191
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95
                                                                                                                                                                                                                                                                                                                                   GlnAlaLeuMetProIleThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACAACTTTTCCACTACCAGTTGCAACAAGGATATTTGATATCTTTATGTCTGAGGGTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuAlaTyrGluGluTyrAsnProGluValGlyTyrCysArgAspLeuSerHisIleAla
                                                                                                                                                                                                                                                                         LysLeuThrArgLysGlnGlyAspLeuProProProAlaLysProGluGln
                                                                                                                                                                                                                                                                                                                                                                  AspGluAspThrValLeu---
                                                                                                                                                                                                                                                                                                                                                                                                                           ThrSerArgCysGlyProTrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAATAGTGTTTCGTGTAGGATTAGCACTTCTTCAGATGAATCAGGCAGAACTGATGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspGlyIleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LysHisIlePhePheArgAspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyLysArgSerSerGluHisIleGlnArgIleAspArgAspValSerGlyThrLeuArg
                                                                                                                                                                                                                                                                                                                                                                                               CTTGACATGGAAGGGATGTTACAGCACTTTCAAAAGGTCATTCCACATCAGTTTGATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AspLysLysAspLeuCysGlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGTATGTACCAGTTTGAATGTATGATACAGGAGCATCTTCCAGAGCTCTTTGTACATTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuGlnAspGlnGlnGluHisValValAlaThrSerGlnProLysThrMetGlyHisGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAAGATTATAGA-----CTTCGTGAACTTTTTAAACCAAGTATGGCAGAATTGGGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AlaSerGluArgHisSerLeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGGCTTACTCTTTAGTAGATCGTGAGGTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGAAAATGACCTCGCCTTGTGAAAAATTGATCCGAAGGGACATTGCTAGAACTTACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCAGTGCACAAAGTATGCCCAATTAAGGATCAG-----TATTCAGAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuAsnIleGluGluMetLysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGGAACTTGTTCATAAAGGGATACCCCATCACTTTAGAGCAATAGTTTGGCAACTTTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IleAspArgAlaTyrLysGlyMetProMetAsnIleArgGlyProMetTrpSerValLeu
                  melanogaster
                                                                                                                                                                                                                US/09270767
                                                                                                                                                                                                                                                                                                                                                              TTACTGTCAAGGAAGTGCTTTTATAGTT
                                                                                                                                                     melanogaster
                                                                                                                                                                                                                                                                                                     365
                                                                                                                                                                                                                                                                          1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1070
                                                                                                                                                                                                                                                                                                                                                                 348
                                                                                                                                                                                                                                                                                                                                                                                               1190
                                                                                                                                                                                                                                                                                                                                                                                                                            334
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Alignment
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
Query Match:
DB:
               S
                                             밁
                                                                     á
                                                                                                                            δ
                                                                                                                                                                밁
                                                                                                                                                                                            8
                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                         닭
                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                         밁
                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-071-838-2 (1-549) x US-09-270-767-12482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    No.:
               312
                                               891
                                                                                                         831
                                                                                                                                                                                                                             714
                                                                                                                                                                                                                                                                                       672
                                                                                                                                                                                                                                                                                                                                                   612
                                                                                                                                                                                                                                                                                                                                                                                                              552
                                                                           292
                                                                                                                                     272
                                                                                                                                                                 774
                                                                                                                                                                                               252
                                                                                                                                                                                                                                                         235
                                                                                                                                                                                                                                                                                                                     215
                                                                                                                                                                                                                                                                                                                                                                                195
                                                                                                                                                                                                                                                                                                                                                                                                                                            175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                47
LeuThrLysThrSerArgCysGlyProTrpAlaArg-PheCysAsnArgPheValAspTh
                                             GAGGGCGCCAAGATCATTTTTATGATTTCACTGCAGATCATTGAATGGAACAGGGACAAA
                                                                         GluGlyGluGlnAlaLeuMetProIleThrArgIleAlaPheLysValGlnGlnLysArg
                                                                                                                                IleLeuIleAspGlyIleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuVal
                                                                                                                                                                                             GlyHisGlnAspLysLysAspLeuCysGlyGlnCysSerProLeuGlyCysLeuIleArg
                                                                                                                                                                                                                             GCCCAAATCGATCAGGGTGTGCTTAATGAGCTAGTGGAGACGCATTTGCCTGATTTGCAC
                                                                                                                                                                                                                                                        LeuGlnAspGlnGln-----GluHisValValAlaThrSerGlnProLysThrMet
                                                                                                                                                                                                                                                                                                                                                 TCGGTGTTCCTGCTCTTCTGTGATGAGGAGGAACGCATTCTGGATGCTGGCCAGCCTGTGC
                                                                                                                                                                                                                                                                                                                                                                  AlaLeuPheLeuLeuTyrLeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeu
::::::||||||||||
                                                                                                                                                                                                                                                                                                                                                                                                             CAGGCCTATGCGCTGCGGAATCCACAAGTGGGCTACTGTCAGGCCATGAATATTGTGTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                LeuAlaTyrGluGluTyrAsnProGluValGlyTyrCysArgAspLeuSerHisIleAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACAAGGAGATGAATCCCGGACTGTACGAGGATCTCGTAGAGAAGGCGGCTTGCATAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MetLysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGly------Lys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LysGlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGlu 119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCAGAGATCATACAGAAGCAGGAG-----GAAAAGATGGTGCGCTGGGAGGCGCATTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCTTCTGGCTCGAGTTCAT--
                                                                                                       ATCTTCATGAGCGTGATCAGCTACGAGAGCTCGCTGCACATCCTGGACTGCTTTTTTTAC
                                                                                                                                                                 GGCCATCTGGAGCAGTTGGGTGTGATTAAGATGATTTCC---ATTTCCTGGTTCCTTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGGCATTTCAMAGCACCGATGGCATAGGTGCTCTGCGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACTGCTTTGCCCAC---GATGAAATTGATCGGGACTTGCCGCGTTCGCTGCCCGAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ArgSerSerGluHisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ArgGluIleSerArgLysSerLysTrpValAspMetLeuGlyAspTrpGluLysTyr---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AspHisLeuGlyIleValHisGluThrGluLeuProProLeuThrAlaArgGluAlaLys
                                                                                                                                                                                                                                                                                       -----GAGAACTTACTACCGGACTACTACAAGGATAAA------GTGGTGGGC
                                                                                                                                                                                                                                                                                                                   AlaSerGluArgHisSerLeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IlePhePheArg-----AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGGGTATTCCTGACAAACTGCGCCAGGAGATCTGGCTGATATTCTCGGGGGCAATCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGGACTTCGGACGGGCATTGGAATGTTCCGCACAACGGACGTGATAAATCTAATAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----LysSerSerArgLysLeuIleAspArgAlaTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TACGACATTTCGTGGAGCAAGCAGACCGCTCTGATGAACACATTCAAGACAĆÁGTTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         7.13e-06
222.00
36.6%
24.5%
7.4%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----GTTCCTTTGAGTCGCGAACGCGCTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (1-1887)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1887
129
64
198
138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlnIleArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -GICCIT
```

291

830 271 773 251

713 234 671

214 611 194

551 174 503 156 446 136 326 99 266 212

69

88

152

```
; Sequence 9899, Application US/09270767
; Patent No. 6703491
; GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFERENCE: File Reference: 7326-094
; CURRENT APPLICATION NUMBER: US/09/270,767
; CURRENT FILING DATE: 1999-03-17
; MUMBER OF SEQ ID NOS: 62517
; SOFTWARE: PatentIN Ver. 2.0
; SEQ ID NO 9899
; SEQ ID NO 9899
; LENGTH: 806
; TYPE: DNA
; ORGANISM: Drosophila melanogaster
US-09-270-767-9899
                                                     Best L
Query
                                    DB:
                                                                     Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
                                                                                                                              Pred. No.:
                                                                                                                                              Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-270-767-9899/c
 US-10-071-838-2
                                                       Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1116 AAAAGATTCGGAT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1056 AAGATGGAGCGTAAAGTCCAAACACAAAACAGTTCAGACCCTGATCCATGAGGCATACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCATCAATGCATTGGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCGAAAAATTGTTTAGGCTTACTGATAAGAAGGGAACTGGTGTTCTCGACTTCGGACAGC 1572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TATTCCACACACTTTTTACGGAACTGACACCCTGGCGTAAGTGCGTCAGCGTGGACATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAATGCCCGTTGTCTGAGACTCCCCAGCTGGTCCCTCAGT---CGACAAGCAGACCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rLeuCysLysGlyAspArgGlnAlaProProGlyPro------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTGTCAAGGCTTACGTCCAGAATCCGTATTTCAACCGCAGTGAACTGCATATGCTGCTC 1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           oValProAlaSerArgGlyGly------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       giysGlnGlyAspLeuProProProAlaLysProGluGlnGlySerSerAlaSerArgPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                pLeuAspValGluGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                pargPheLeu------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         γValPro-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAAGATGCCGGCGCCTCC-GGAGGC---AGATACGAGGCTTACAGTGTCAGCTATGA-GG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rSerThrProCysProGlyGlyAlaValArgGluAspThrTyrProValGlyThrGlnGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -ProAlaArgPheProArg---ProIleTrpSerAlaSerProProArgAlaProArgSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTATCATCCGGGAAGGAAAAGCACGCCCTTAAATCCCTGCAACAGCAGCAGCAGAAGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTACGCAACAAGCATCGCCGGTTAACGATGCGACAGTTCGATATCGACAACGAGAAGACC 1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGGAGG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      rTrpAlaArgAspGluAspThrValLeu------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGTTGATCTGCCAAGATGATGGCGAAGCCATGCTAGTTTTGCAGA-----ACTAC 1001
 (1-549)
                                                 0.000168
194.50
41.1%
26.4%
6.5%
x US-09-270-767-9899 (1-806)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -GAGTTTACAATCCAGAGTACCAGGTGCCTCCTACGACGGACAAACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SerProAlaLeuAlaGlnGlyGlyProGlnGlySerTr
                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -GAGGGAGTATCACACÁGCAGCGCATCGAGGAG 1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlnTrpAsnSerMetProArgLeuProThrAs
                                      806
79
44
111
67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ---LysTh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . 1115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                379
                                                                                                                                                                                  RESULT 14
US-08-363-300-1
                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                     ; Sequence 1, Application U
; Patent No. 5700927
; GENERAL INFORMATION:
APPLICANT: Zon, Leona
TITLE OF INVENTION: T
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson
STREET: 225 Franklin Street
ADDRESSEE:
STREET: 22
CITY: Bost
                                                                                                                                                                                                                                                                              366
                                                                                                                                                                                                                                                                                                                   126
                                                                                                                                                                                                                                                                                                                                                     346 rMetLysLysLeuThrArgLysGlnGlyAspLeuProProProAlaLysProGluGlnGl
                                                                                                                                                                                                                                                                                                                                                                                                                              326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           247 GlnProLysThrMetGlyHis-GlnAspLysLysAspLeuCysGlyGlnCysSerProLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            221 LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAsp------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    201 LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer :::|||||||||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          671 GTTATCCAG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       141 HisIleGlpArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101 GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121 LysLeuLysAsnProGlyArgTyrGlnTleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                                                                            85
   Boston
                                                                                                                                                                                                                                                                              ySerSerAlaSer-------ArgProValProAlaSerArgGlyGly
                                                                                                                                                                                                                                                                                                                 GTTGCCGAAAAAGTGCCGCAGCTCC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -CTCTTCCAGGTGGCCGTTACTCTTATCAATCTGTGAATCC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGATGTGTTTCTACTGGACGGA------CTACCTGTG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIleThrArgIleAlaPheLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAATGG-TTCCTAACCTTATATACAGCGCGATTCCCATTGTGTTTTTGTGTTCCACGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCCCAAGCTGCACGAACACTTCACGGCCTGCGGCATTGAGACGCACATGTACGCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----GlnGlnGluHisValValAlaThrSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGCCTGAGGAGGATGCGTTCTGTGTTCTGGTAGCGCTTATGTACGAC-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACAGCGAGGTTGGATATTGTCAGGGTCTAAGTTTCATAGCAGCTAGTCTGCTCCTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAPATTGGCGGTTCTGGCCAAGATGCACTTTTTAAGGTGTCCAAAGCGTATGCCGTTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGAATGGAAATGAACGACAAGTACAAGATCTTAATCACCAAAGAAACCAAATGTGAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCGTTCCAGAAGCACTGCGTGAAAAGATCTGGCAGAAGCTAGCCAACGTCGAGGGC---
                                                                                                                                                                                                                                              TGATGAAGCAAGCCTGCGAACGTAAGATAAAAAAACTGAAGCAGTACGAGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                            nArgPheValAspThrTrpAlaArgAspGluAspThrValLeuLysHisLeuArgAlaSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     aValGlnGlnLysArgLeuThrLysThrSerArgCysGlyProTrpAlaArgPheCysAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   uGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGlyLeuThrLeuArgLeuTr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCGGATTCGAGGTCCTTTACCTTCGTCTCTACCAACTGGAGCGACTGATCAAGGATCAG
                                                                                                           Leonard
                                                                                                                                                                                                                                                                                                                                                                                          GACTTGCGGCAACTCGATTTTGAGGGCATTCTAAAGTATTTCCGGGTAAC
                                                                                            Tbc1
                                                                                                                                                                   US/08363300
                                                                                        and Richardson,
1 Gene and Uses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGGGACATCCATCGCACTTTCCCGGCGCACAAATGCTTCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----TATGGGCTCCGTGATCTCTACAAA
                                                                                                               Paul
                                                                                                                                                                                                                                                                                                                       - AGTCAGGC - ACGCAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ------
                                                                                                                                                                                                                                              31
                                                                                                                                                                                                                                                                                                                                                         366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   672
                                                                                                                                                                                                                                                                                                                                                                                                127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 453
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        732
```

밁 S 밁 S 밁 र् 밁 S 밁 S 밁 S 밁 δ 밁 8 밁 S 밁 8 밁 á 밁

```
Ś
                                                                                                                                                                                                                                                                                                                              ð
                     밁
                                                δ
                                                                                        밁
                                                                                                                     8
                                                                                                                                                           밁
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-071-838-2 (1-549) x US-08-363-300-1 (1-4039)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-363-300-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORMEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 04590/009001
REFERENCE/DOCKET NUMBER: 04590/009001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5906
TELEPHONE: (617) 542-8906
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 4039 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/363,300 FILING DATE: CLASSIFICATION: 514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STATE: N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LOCATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY:
                     2791
                                                                                                                                                                                                                                                                                                   2576
                                                                                                                                                                                                                                                                                                                                                                      2516
                                                                                                                                                                                                                                                                                                                                                                                                                                         2468 GATCCTGCCTCGTCAGGATGGAGAAGGAAGCTACAAG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2408 AGAAAAGAGGAAGACGTCACGCGAGCTTCGAGAGCTGTGGAAAAAAGGCCATCTTGCAGCA
                                                                                                                                                                                            100
                                                                                                                                                                                                                                                                 84
                                                                                                                                                                                                                                                                                                                                                                                                         49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13 GlmGluArgGluAspIleIle------MetLysTyrGluLysGlyHisArgAlaGly :::::: |||||||:::
                                                                                                                                                                             nucleic acid
                                                                                                                       MetLysLeuLysAsnProGlyArgTyrGln------IleMetLysGluLysGly 135
                                                                                                                                                                                                                           AAAATTAAGTTTGACATGGAAAAAGTGCACTCAGCT-------GTTGGG
                                                                                                                                                                                                                                                                                                TT-AAAGAAGTCACT----ACAGTGTGGGAAAAGATGCTTAGCACTCCAGGAAGATCC
                                                LysArgSerSerGluHisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLys 155
                                                                                                                                                          CAAGGTGTGCCACGTCATCACCGAGGTGAGATCTGGAAATTTCTAGCTGAGCAGTTCCAC 2730
                                                                                                                                                                                                                                                                                                                              ArgArgGluIleSerArgLysSerLysTrpValAspMetLeuGly------
                                                                                                                                                                                                                                                                                                                                                                    CTGAAAACGATTTGCTGAACAAACGCCTCAAGCTTGACTATGAAGAAATCACTCCGTGTC
                                                                                                                                                                                                                                                                                                                                                                                                 LeuGlyIleValHisGluThrGluLeuProProLeuThrAlaArgGluAlaLysGlnIle
                  AAGAAGCTGACCTCGCAGCAGCACGCCATTCTCATCGACCTCGGGCGAACCTTTCCAACA 2850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LeuProGluAspLysGly----ProLysProPheArgSerTyrAsnAsnAsnValAspHis
                                                                                      CTTAAACACCCATTTCCTAGTAAACAGCAGCCAAAGGACGTGCCCTACAAAGAGCTCCTG
                                                                                                                                                                                                                                                           ------AspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            403..3829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0.00888
182.50
34.6%
22.5%
6.1%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 #1.30B
                                                                                                                                                                                                                                                                                                                                                                                                                                         Ç
                                                                                      2790
                                                                                                                                                                                          119
                                                                                                                                                                                                                           2670
                                                                                                                                                                                                                                                             99
                                                                                                                                                                                                                                                                                                2628
                                                                                                                                                                                                                                                                                                                                                                   2575
                                                                                                                                                                                                                                                                                                                                                                                                     89
                                                                                                                                                                                                                                                                                                                                                                                                                                       2515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2467
                                                                                                                                                                                                                                                                                                                                  83
ð
                                  밁
                                                                 S
                                                                                                     밁
                                                                                                                                  δ
                                                                                                                                                                      밁
                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                  3674
                                                                                                                                                                          3563
                                                                                                                                                                                                                                             3504
                                                                                                                                                                                                                                                                                                                3468
                                                                                                                                                                                                                                                                                                                                                                                 3447
                                                                                                                                                                                                                                                                                                                                                                                                                                                      3411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3085
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2971
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2851 CATCCATACTTCTCTGCCCAGCTTGGAGCAGGTCAGCTGTCACTTTACAACATTCTGAAG
                                                                                                                                       453
                                                                                                                                                                                                                                                                             429
                                                                                                                                                                                                                                                                                                                                                                                                                     394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196
 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   296 AlaLeuMetProIleThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThr 315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            256 LysLysAspLeuCysGlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     156
CysTrpGlnAlaGluHisProAlaGluArgValArgSerAlaPheAlaAlaProSerThr 511
                                                                                                                                                                        ACCTCCTGGAGCAGTTGCAGGTGGCAAATGCTAGGATCCAAAGCCTTGAAGCCACGGTAG
                                                                                                                                                                                                     GlySerTrpArgPheLeuGlnTrp-----
                                                                                                                                                                                                                                         CAACCAAAGAATGGAGAAATTGGAGAAAAACCAACAGCACGTTGCGCAAACAGAACCTTG- 3562
                                                                                                                                                                                                                                                                                                                                           ThrProCysProGlyGlyAlaValArgGluAspThrTyrProVal------
                                                                                                                                                                                                                                                                                                                                                                                   TGAGGTCGAGTACCACGTCGT-----
                                                                                                                                                                                                                                                                                                                                                                                                                    ProAlaArgPheProArgProIleTrpSerAlaSerProProArgAlaProArgSerSer 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCCCCAACCTGGG-CCTGGTGCAGATGGAGAAGACCATCAGTCAGGT-------
                                                                                                     AGAAACTTCTTACCAGCGAGAGTAAGCTGAAGCAGCGTGCGCTGACCCTGG------
                                                                                                                                    ---AsnSerMetProArgLeuProThrAspLeuAspValGluGlyProTrpPheArgHis 471
                                                                                                                                                                                                                                                                          ------GlyThrGlnGlyValProSerProAlaLeuAlaGlnGlyGlyProGln 444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProAlaSerArgGlyGlyLysThrLeuCysLysGlyAspArgGlnAlaProProGlyPro 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlnGlyAspLeuProProProAlaLysProGluGlnGlySerSerAlaSerArgProVal 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGCCCTTGATTCTACAGCATGAGAACCTGGAAACCATCGTGGACTTCATAAAGAACACA 3363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTTTGCTTCTCACATGAGTGAGGAAGAGGCGTTCAAGATGCTCAAGTTCCTGATGTTT 3030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LeuPheLeuLeuTyrLeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAla
                                                                 TyrAspPheArgGlnSerCysTrpValArgAlaIleSerGlnGluAspGlnLeuAlaPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GluAspThrValLeuLysHis-----LeuArgAlaSerMetLysLysLeuThrArgLys 353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SerArgCysGlyProTrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAsp 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyIleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGln 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCACGAGACTGGCCCCCTACGTACGCGGCTCCCTGGTTTCTCACCGTGTTCGCCTCA 3204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlnAspGlnGlnGluHisValValAlaThrSerGlnProLysThrMetGlyHisGlnAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAC-----ATGGGGCTGCGGAAACAGTATCGGCCAGACATGATTATTTTGCAGATCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SerGluArgHisSerLeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCTACTCGCTTCTGGACCAGGAGGTTGGATACTGCCAAGGTCTCAGCTTTGTGGCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AlaTyrGluGluTyrAsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAla 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HisIlePhePheArgAspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeu 175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGTACCAGCTGTCACGGCTCCTCCACGATTACCACCGAGACCTCTACAACCACCTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ------GTTTGAGATGGACATCGCCAAGCAGCTCCAGGCCTA 3446
                                  ----AGGTGGAGCGTCGCCCTGCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -GTCATATTTÀÀAGTAGCTTTAAGTCTTTTG------
                                                                                                                                                                                                                                                                                                              -----TATTGAGTCCTCGCCTCTCAGTGA 3503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGAGCCAT 3303
                                                                                                     3673
                                                                                                                                                                        3622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3084
                                                                                                                                                                                                                                                                                                                                                                                 3467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2910
                                                                                                                                                                                                          452
                                                                                                                                                                                                                                                                                                                                                 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        235
```

```
APPLICANT: BLUGUELERET, Lydie
APPLICANT: BOUGUELERET, Lydie
APPLICANT: CHUMAKOV, Ilya
TITLE OF INVENTION: Nucleic Acids Encoding Hun
TITLE OF INVENTION: Thereof.
FILE REFERENCE: 46.US2.PCT
CURRENT APPLICATION NUMBER: US/09/762,311
CURRENT FILING DATE: 2001-06-21
PRIOR APPLICATION NUMBER: US 60/095,653
PRIOR FILING DATE: 1998-08-07
NUMBER OF SEQ ID NOS: 7
SOPTMARE: Patent.pm
SEQ ID NO 3
LENGTH: 3983
TYPE: DNA
ORGANISM: Homo Bapiens
   밁
                              δ
                                                                        뮹
                                                                                                           Ś
                                                                                                                                               문
                                                                                                                                                                            Ş
                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
US-09-762-311-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-071-838-2 (1-549) x US-09-762-311-3 (1-3983)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-09-762-311-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 3, Application US/09762311
Patent No. 6825004
GENERAL INFORMATION:
APPLICANT: BLUMENFELD, Marta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: misc_feature
LOCATION: 36
OTHER INFORMATION: n=a,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: CDS
LOCATION: 171..3725
NAME/KEY: polyA_signal
LOCATION: 3942..3947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OTHER INFORMATION: AATAAA
                                                                                                                                                 2670
                                                                                                                                                                                                                                                                                                                                                                          2490
                                                                                                                                                                                                                        2610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3698
2790 TACAACATTTTGAAGGCCTACTCCTAGACCAGGAAGTGGGATATTGCCAAGGTCTC
                                                                                                                                                                                                                                                                                                 2550 CACTCGGCTGTTGGGCAAGGTGTGCCACGTCATCACCGAGGTGAAATCTGGAAATTTCTA 2609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3740 CCAGAGCCAGACTGCÁCCCAGCTGGAGCCCACAGGCGATTGACCG 3784
                        171 LeuHisIleLeuLeuAlaTyrGluGluTyrAsnProGluValGlyTyrCysArgAspLeu 190
                                                                                                         151 GlyThrLeuArgLysHisIlePhePheArgAspArgTyrGlyThrLysGlnArgGluLeu 170
                                                                                                                                                                                    131
                                                                                                                                                                                                                                                           115 LeuAsnIleGluGluMetLysLeuLysAsnProGlyArgTyrGln-------Ile 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   512
                                                                                                                                                                                                                                                                                                                                     95
                                                                                                                                                                                                                                                                                                                                                                                                            85
                                                                                                                                                   TACAAAGAACTCTTAAAGCAGCTGACTTCCCAGCAGCATGCGATTCTTATTGACCTTGGG 2729
                                                                                                                                                                                    MetLysGluLysGlyLysArgSerSerGluHisIleGlnArgIleAspArgAspValSer 150
                                                                                                                                                                                                                        GCTGAGCAATTCCACCTTAAACACCAGTTTCCCCAGCAAACAGCAGCCAAAGGATGTGCCA 2669
                                                                                                                                                                                                                                                                                                                    IleAspArgAlaTyrLysGlyMetProMetAsnIleArgGlyProMetTrpSerValLeu 114
                                                                                                                                                                                                                                                                                                                                                                        TGGGAAAAGATGCTTAGCACTCCAGGAAGATCAAAAATTAAGTTTGACATGGAAAAAAATG 2549
                                                                          CGAACCTTTCCTACACACCCATACTTCTCTCCCCAGCTTGGAGCAGGACAGCTATCGCTT
                                                                                                                                                                                                                                                                                                                                                                                                        TrpGluLysTyrLysSerSer------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AspSerAspGlnGlyThrProPheArgAlaArgAspGluGlnPro 526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0.0258
175.50
42.2*
24.9*
5.9*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ---ATGGTGGAGGAGCTGCGGAGGCAAAGCGCCCGGCCCAGCACT 3739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TBC-1 Protein And Polymorphic Marke
                                                                                                                                                                                                                                                                                                                                                                                                        -----Argiysieu 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3983
59
41
114
23
                                                                          2789
```

```
片
                                                                                                    δ
                                                                                                                                          밁
                                                                                                                                                                           Ś
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                             S
                            S
                                                                                                                                                                                                                                                                                           밁
3144 CTTCAGGGA---
                                                                        3084 ACCATGTTTGCCTCACAGTTCCCGCTGGGATTCGTAGCCAGAGTCTTTGATATGATTTTT
                                                                                                                                              3024 TACAATCACCTGGAGGAGCACGAGATCGGCCCCAGCCTCTACGCTGCCCCCTGGTTCCTC
                                                                                                                                                                                                                      2964 ATTTTACAGATCCAGATGTACCAGCTCTCGAGGTTGCTTCATGATTACCACAGAGACCTC
                                                                                                                                                                                                                                                                                             2910 AAGTTTCTGATGTTTGAC-----ATGGGGCTGCGGAAACAGTATCGGCCAGACATGATT
                          291 ValGluGlyGluGlnAlaLeuMetProIleThrArgIleAlaPheLysVal 307
                                                                                                                                                                            251 MetGlyHisGlnAspLysLysAspLeuCysGlyGlnCysSerProLeuGlyCysLeuIle
                                                                                                                                                                                                                                                                                                                                                                 271 ArgIleLeuIleAspGlyIleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeu
                                                                                                                                                                                                                                                       231 ThrValGlnGlyLeuGlnAspGlnGlnGluHisValValAlaThrSerGlnProLysThr 250
                                                                                                                                                                                                                                                                                                                             211 ValGlnLeuLeuAlaSerGluArgHisSerLeuGlnGlyPheHisSerProAsnGlyGly 230
     ACAGAGGTCATATTTAAAGTG 3173
                                                                                                                                                  3083
                                                                                                                                                                                                                        3023
                                                                                                                                                                                                                                                                                                2963
                                                                                                              290
                                                                                                                                                                                    270
                                                                                                                                                                                                                                                                                                                                                                         2909
```

Search completed: April 5, 2006, 14:54:45
Job time : 305 secs

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -MODEL=frame+_p2n.model -DEV=xlh
-Q=/abss/ABSSWEB_spool/US10071838/runat_05042006_141915_5173/app_query.fasta_1
-Q=/abss/ABSSWEB_spool/US10071838/runat_05042006_141915_5173/app_query.fasta_1
-DB=EST -QFMT=fastap -SUFFIX=rst -MINMATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=blts -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LLST=45
-DOCALIGN=200 -THR_SCORE=pct -THR_MAX=100 -THR_MIN=0 -ALIGN=15 -MODE=LOCAL
-CUTTMT=pto -NORM=ext -HEARSIZE=500 -MINLEN=0 -MAXLEN=2000000000 -HOST=abss08
-USER=US10071838_GCGN_1 _5315_gcrunat_05042006_141915_5173 -NCPU=6 -ICPU=3
-NO_MMAP -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV_TIMEOUT=120
-NARN_TIMEOUT=30 -THREADS=1 -XGAPOPP=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Command line parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ·YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                       and is
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB seq
     2963
2820
1513
1455
1440
1397.5
                                                                                                                                                           Score
                                                                                                                                                                                                                                                 No. is the number of results predicted by chance to have a greater than or equal to the score of the result being printed, s derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            length: 0
length: 2000000000
                                                                                                                                                         Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 April
     99.3
94.5
50.7
48.8
46.8
45.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          41078325 seqs, 23393541228 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-071-838-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MDVVEVAGSWWAQEREDIIM.....TSGPCLCGLHLESSQFPPGF 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Copyright
                                                                                                                                                                                                                                                                                                                            gb_gss1:*
gb_gss2:*
gb_gss3:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                              gb_est2:*
gb_est3:*
gb_htc:*
                                                                                                                                                                                                                                                                                                                                                                                        gb_est4:*
gb_est5:*
gb_est6:*
gb_est7:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gb_est1:*
                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5, 2006, 14:42:42; Search time 6211 Seconds (without alignments) 4135.583 Million cell updates/sec
     2072
2497
915
954
909
868
881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                                                                             멂
                     HSM801828
BC047739
BQ923700
BU526609
BI753688
CD653466
     BU542901
                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      82156650
AL136860 Homo sapi
BC047739 Homo sapi
BQ923700 AGENCOURT
BU526609 AGENCOURT
BI753688 603023590
CD653468 AGENCOURT
BU542901 AGENCOURT
                                                                                                                                                       Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                              LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 1
HSM801828
   FEATURES
                                                                                                                                                                                             COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                   CONSRTM
TITLE
                                                                                                                                                                                                                                 JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       39
40
41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19
20
21
22
23
24
24
26
28
                                                                                                                                             Neuherberg, GERMANY
Clone from S. Wiemann, Molecular Genome Analysis, German Car
Research Center (DKPZ); Email s.wiemann@dkfz-heidelberg.de;
Research Center, 'Carman Cancer Research Center,
               Heidelberg/Germany) within the cDNA sequencing consortium of the German Genome Project. This clone (DKP2p3492335) is available at the RZPD Deutsches Ressourcenzentrum fuer Genomforschung GmbH in Berlin, Germany. Please contact RZPD for ordering: http://www.rzpd.de/cgi-bin/products/cl.cgi/CloneID-DKFZp434P2235 Further information about the clone and the sequencing project is available at http://mips.gsf.de/projects/cdna/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens mRNA; cDNA
AL136860
                                                                                                                                                                                                                               Submitted (22-SEP-2004) MIPS, Ingolstaedter Landstr.1, D-85764
                                                                                                                                                                                                                                                 Direct Submission
                                                                                                                                                                                                                                                                     The German cDNA Consortium
                                                                                                                                                                                                                                                                                                      1 (bases 1 to 2072)
Poustka,A., Albert,R., Moosmayer,P., Schupp,I., Wellenreuther,R.,
Mewes,H.W., Weil,B., Amid,C., Osanger,A., Fobo,G., Han,M. and
                                                                                                                                                                                                                                                                                                                                                                Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AL136860.1
                                                                                                                                                                                                                                                                                        Wiemann,S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HSM801828
```

sapiens (human)

GI:12053224

2072 bp mRNA DKFZp434P2235 (from

linear HTC 22-SEP-2004 m clone DKFZp434P2235).

Location/Qualifiers

Cancer

Ţ	•	891	0	N	٠	w	ū	Φ	•	2	6	9	1067	9	H	11	1113	9	H	1117	1117	1118	1138	1162	1162.5	1168	1171.5	1181	1181.5	1211	1240.5	1243	7	1302.5	1323	32	133	œ
	.8 8	٠					۲	ü	.4	35.2	5	.5	35.8	٥.	7.	7.	7.	7.	37.4	7.	37.4	7.	8	9	39.0	9	9	٥	9		41.6	41.7	42.7	43.7	44.4	44.4		44.9
	875	671	498	94 84	1045	545	539	573	979	650	802	633	635	628	986	742	628	848	727	630	629	818	839	634	882	667	840	964	839	3109	946	709	831	1079	•	930	_	_
	9	W	ຫ	σ,	۴	7	ഗ	w	w	ω	7	æ	1	æ	ហ	w	w	ഗ	ч	ω	w	ω	w	7	ω	w	ω	w	σ	4	Ç	N	ω	ω	w	U	w	w
ALIGNMENTS	Q788	82	75	8	3	N	8	4	3	Ξ	766	8	650	99	46	832	5	942	24	4	4	9	2	262	2	1827	ñ		8	w	89	108	1826	9	M55		I52260	M56032
ENTS																																						••
	Q788033	828386	79913	709135	63007	62009	81608	842932	830468	30812	66757	06725	439	99748	346181	150	762465	2166	42933	42553	43014	97531	86910	2008	20522	27136	9764	14524	87310	037244	891586	88323	28272	63571	553146	Q920917	22600	0320
	HS_3100_A	603078333	BX279913	AGENCOURT	AGENCOURT	170006001	BX281608	K-EST0120	603073339	603080926	DKFZp468D	TC105000	AV650439	TC104423	BX346181	603075809	K-EST0043	AGENCOURT	DKFZp434K	K-EST0119	K-EST0120	603247059	603249940	170005977	603071531	603077337	603079835	AGENCOURT	AGENCOURT	Homo sapi	AGENCOURT	602852793	603078163	AGENCOURT	AGENCOURT	AGENCOURT	603175612	AGENCOURT

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                          Ś
                                                                     밁
                                                                                                 S
                                                                                                                                                                     S
                                                                                                                                                                                                                                        중 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
 밁
                                                                                                                                 멍
                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-071-838-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Alignment
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
 519
                                                                         459
                                                                                                                                              399
                                                                                                                                                                                101
                                                                                                                                                                                                                    339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scores:
                                 141
                                                                                                         121
                                                                                                                                                                                                                                                                                         279
                                                                                                                                                                                                                                                                                                                                                                219
                                                                                                                                                                                                                                                                                                                                                                                                                                      159
                                                                                                                                                                                                                                                                                                                                                                                                    41
                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Н
GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                            LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGGACGTGGTAGAGGTCGCGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                          LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                              GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                                                                                      MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                           ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                                                                                                   SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                        ANATACGANAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                    AGCTACAACAACACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (1-549)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /gene="DKFZp434P2235"
/gene="DKFZp434P2235"
/codon_start=1
/prodoict="hypothetical protein"
/prodoict="hypothetical protein"
/prodoict="hypothetical protein"
/protein_id="CAB66794.1"
/db_xref="GI:12053225"
/db_xref="miDVVEVAGSWWADGREDIIMKYEKGHRAGLDEDKGDKEPFRSYNN
/translation="miDVVEVAGSWWADGREDIIMKYEKGHRAGLDEDKGDKEPFRSYNN
/translation="miDVVEVAGSWWADGREDIIMKYEKGHRAGLDEDKGTLARHIFFR
PMNIRGPMWSYLLNTEEMKLKNPGRYQIMKEKGKSSEHIQRIDEDKSGTLARHIFFR
PMNIRGPMWSYLLNTEEMKLKNPGRYQIMKEKGKSSEHIQRIDEDKSGTLARHIFFR
PMNIRGPMSYLLNTEEMKLKNPGRYQIMKEKGKSSEHIQRIDEDKSGTLARHIFFR
PMNIRGPMSYLLNTEEMKLKNPGRYQIMKEKGKSSEHIQRICHGGCSPLGCLIRILIGG
RYGTKQRELLHIILLAYEEYNPEVGYCRDLSHIAALFILYLDEEDAFWALFGCLIRILIGG
ISLGITLRLWDYYLVEGEQALMPITRIAFKVQQKRLTKTSRCGFWARFCKRFVDTWAR
DEDTYUKHLRASMKKLTRKKGDLDFDAKFEGGSSASRFVEYASAFAA
DEDTYUKHLRASMKKLTRKKGDLDFDAKFEGGSSASRFVEYGRQAEHPAERVRSAFAA
PSTDSDQGTPFRARDEQQCAPTSGFCLCGLHLESSQFPPGF"
                                                                         /organism="Homo sapiens"
/mol type="mkNA"
/mol type="mkNA"
/db_xref="RZDP:DKFZp434P2235"
/db_xref="taxon:9666"
/clone="DKFZp434P2235"
/clone="DKFZp434P2235"
/clone="bkFZp434P2235"
/cl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /gene="DKFZp434P2235"
99. .1748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="TBC1 domain family,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1.28e-194
2963.00
99.6%
99.3%
99.3%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HSM801828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (1-2072)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  member 3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2072
545
2
2
0
0
                                                                                                                                                                                  120
                                                                                                                                                                                                                                                         100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 158
                                                                                                            140
                                                                                                                                                                                                                                                                                             338
                                                                                                                                                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40
   578
                                     160
                                                                         518
                                                                                                                                                458
                                                                                                                                                                                                                       398
                                                                                                                                                                                                                                                                                                                                                                    278
                                                                                                                                                                                                                                                                                                                                                                                                                                        218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                      유
                                                                                          밁
                                                                                                                    Ś
                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     성 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                               1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1059
                                                                                                                                                                 1479
                                                                                                                                                                                                                                        1419
                                                                                                                                                                                                                                                                                                                                                                                       1299
                        1599
                                                                                                                                                                                                     461
                                                                                                                                                                                                                                                                            441
                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                         401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               161
                                                        501
                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ASDProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                         AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                             GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                                                                            GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                  ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln 440
                                                                                                                                                                                                                                                                                                                                                                                                          IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ThrargIlealaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGCTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                           ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                     GACCTGGACG
                                                                                                                                                                                                                                          GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                       ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCCTCTGCAAGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCGGTTCCCGCGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCAPACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTATGAAGAAACTAACAAGAAAGAAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1178
                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                            1658
                                                                                                                                   500
                                                                                                                                                                       1538
                                                                                                                                                                                                                                              1478
                                                                                                                                                                                                                                                                                 460
                                                                                                                                                                                                                                                                                                                                                                                           1358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        878
                                                                                               1598
                                                                                                                                                                                                                                                                                                                   1418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            698
```

US-10-071-838-2 (; Qy	No.: t Similari c Similari ocal Simil Match:	a G	Clone through the chrough through through through the chromatic form of the chromatic fo	REMARK NIH-MGC COMMENT Contact Email: Tissue CDNA Lil DNA Segg Center, Web site	ORGANISM Homo Eukar Mamma AUTHORS TITLE JOURNAL Gene Insti	39 TION TION N N	Oy 521 Ala Db 1659 GCT Oy 541 Glu Db 1719 GAA
2 (1-549) x BC047739 (1-2497) MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet 20	1.32e-184 Length: 2497 2820.00 Matches: 542 y: 79.0% Conservative: 2 rity: 78.7% Mismatches: 5 94.5% Indels: 140 4 Gaps: 2	12497 /organism="Homo Bapiens" /mol_type="mRNA" /db_xref="taxon:9606" /clone="IMAGE:5743752" /tissue type="Brain, adult medulla" /clone_Tib="NIH_MGC_119" /lab_host="0H10B" /note="Vector: pCMV-SPORT6"	Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and Myers, R. M. Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Seriee: IRAK Plate: 98 Row: d Column: 17 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 14149984 This clone has the following problem: retained intron. Location/Oualifiers	GC Project URL: http://mgc.nci.nih.gov ct: MGC help desk : Cgapbs-r@mail.nih.gov e Procurement: Life Technologies, Inc. Library Preparation: Life Technologies, Inc. Library Preparation: Life Technologies, Inc. Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) requencing by: Sequencing Group at the Stanford Human (requencing by: Sequencing Group at the Stanford Human (ry, Stanford University School of Medicine, Stanford, (ite: http://www-shgc.stanford.edu ct: (Dickson, Mark) mcd@paxil.stanford.edu ct: (Dickson, Mark) mcd@paxil.stanford.edu	Homo sapieus Homo sapieus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 2497) Strausberg,R. Direct Submission Submitted (03-MAR-2003) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,	7739 sapiens, 3:5743752 7739 G	AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu 540
8 B 8	B & B &	B & B & B &	B 65 B 65 B	3 2 2 2 3	8 8 8 8 8	9 Q Q Q	D Q D Q
pAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIleThrArgIleAlaPheLy	246 rGlnProLysThrMetGlyHisGlnAspLysAspLeuCysGlyGlnCysSerProLe 266	186 rCysargAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyrLeuProGluGluAspAl 206	689 AAGATACCAGATCATGAAGGAGAAGAGGCACATCTGAGCACATCCAGCGCATCGA 748 146 pArgAspValSerGlyThrLeuArgLysHisIlePhePheArgAspArgTyrGlyThrLy 166	ulysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLysGlyMetProMetAsnIl	389 TCAGCAGTTCTGTCGGCAAGTGAGCACAAGAGGAGCGGGGCAGCCTGAGGGTCTGGCCCT 448 53HisGluThrGluLeuProProLeuThrAlaArgGluAlaLy 66 [GGACAGAACTCCTCCCTGACTCCCCTGCAGGTCCAGCCCGAGGTTGTTAGGCCAGAGGTG 3	21 LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg 40

```
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                        RESULT 3
BQ923700
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                             S
                                                                                                                                                                                                       문
                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                           ş
                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                     밁
                                                                                                                                      ঠ
                                                                                                                                                             밁
                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1229
                                                                                                                                                                                                                                                                                                                                                                              1769
                                                                                                                                                                                                                                                                                                                                                                                                                         1709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1349
                                                                                                                     2129
                                                                                                                                                             2069
                                                                                                                                                                                                        2009
                                                                                                                                                                                                                                                 1949
                                                                                                                                                                                                                                                                                          1889
                                                                                                                                                                                                                                                                                                                                    1829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    322
                                                                                                                                        542
                                                                                                                                                                                                                            502
                                                                                                                                                                                                                                                                      482
                                                                                                                                                                                                                                                                                                               462
                                                                                                                                                                                                                                                                                                                                                         442
                                                                                                                                                                                                                                                                                                                                                                                                   422
                                                                                                                                                                                                                                                                                                                                                                                                                                             402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                362
                    BQ923700 915 bp
AGENCOURT_8798484 NIH_MGC_101 H
5', mRNA sequence.
BQ923700
BQ923700.1 GI:22338731
EST.
 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               euCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgProIleT
                                                                                                                                                                                                                    rpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAlaValA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLysThrL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGAAGGGGGACCTGCCACCCCCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  isLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProProAlaL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACGITTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTCAAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCCAGATGAAAGTCGAGAGTGTGAGCGCCTCACGAAGACGTCCAGGTGTGGCCCGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGAGGTCTGGCCAGGTGGGCTGGGCAGGACACTGTGACACCGAGCCCATCCCCCACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCGACTGGCCCGAGGGCAGCTTCCTCACACTGTCCTCATGATCCTCTGTTCTGGCCCCAGA 1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGTTCAGCAGAGTAAGTCTACGTGTGCCCAGCGGGGCCCTGGGGAGCCCTGGGGTCAGACC
                                                                                                                                                                             rgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeuGluS
                                                                                                                                                                                                                                                 CCATATACCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAGCGG
                                                                                                                                                                                                                                                                                          GACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACGGACC
                                                                                                                                                                                                                                                                                                                                                 GGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAGGGAG
                                                                                                                                                                                                                                                                                                                                                                                            gercaectrecereceacedecacerectretrecacacecretecreseses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           erserGlnPheProProGlyPhe 549
 sapiens
sapiens
                                                                                                                                                                                                                                                            | eSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGluArgV
            (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -LygArgLeuThrLygThrSerArgCygGlyProTrpA
:::|||||||||||
                                                                                                                     2151
                                                                 1 Homo
                                                                         mRNA
                                                                 sapiens
                                                                linear EST 20-AUG-2002 cDNA clone IMAGE:6425622
                                                                                                                                                                                                                                                                                                                  482
                                                                                                                                                                                                                                                                                                                                                                                                                                               422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1288
                                                                                                                                                                                                                                                                                                                                                                                  1828
                                                                                                                                                                                                                                                                                                                                                                                                     442
                                                                                                                                                                                                                                                                                                                                                                                                                           1768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1648
                                                                                                                                                                                     542
                                                                                                                                                                                                                               522
                                                                                                                                                                                                                                                                       502
                                                                                                                                                                                                                                                                                                                                      1888
                                                                                                                                                                                                                                                                                                                                                           462
                                                                                                                                                                 2128
                                                                                                                                                                                                          2068
                                                                                                                                                                                                                                                   2008
                                                                                                                                                                                                                                                                                              1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                           Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                          밁
                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                      á
                                                     Ś
                                                                                                Ś
                                                                                                                     밁
                                                                                                                                          8
                                                                                                                                                                 밁
                                                                                                                                                                                र्
                                                                                                                                                                                                                                                                                             US-10-071-838-2 (1-549)
                                                                                                                                                                                                                                                                                                                                                           Score:
                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
             S
                                  밁
                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                        Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                 Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                  Scores:
                                                                                                                       181
              257
                                   301
                                                       237
                                                                             241
                                                                                                  217
                                                                                                                                            197
                                                                                                                                                                  121
                                                                                                                                                                                      177
                                                                                                                                                                                                                                157
                                                                                                                                                                                                                                                                          137
                                                                                                                                                                                                           51
                                                                                                                                                                                                                                                      \vdash
   LysAspLeuCysGlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGly
                                   GACCAACAGGAGCATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAG
                                                                              GAGAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAA
                                                                                         GluArgHisSerLeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGln
                                                                                                                      TTCCTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGT
                                                                                                                                  PheLeuLeuTyrLeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSer
                                                                                                                                                                  TATGAGGAGTATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTG
                                                                                                                                                                            TyrGluGluTyrAsmProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeu
                                              AspGlnGlnGluHisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLys
```

180

216

240

360 256 300 236

```
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
cDNA Library Preparation: Rubin Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM2607 row: 1 column: 07
High quality sequence stop: 639.
Location/Qualifiers
1 on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hominidae; Homo.

1 (bases 1 to 915)

NIH-MGC http://mgc.nci.nih.gov/.
National instructs of Health, M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (1999)
                                                                                                                                                                                                                                   ArgSerSerGluHisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHis
ATATTCTTCAGGGATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCA
                                        IlePhePheArgAspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAla
                                                                                                                                                                   AAGGCATCTGAGCACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/mol_type="mkNA"
/db_xref="taxon:9606"
/db_xref="taxon:9606"
/clone="MAGE:6425622"
/tissue_type="epidermoid carcinoma, cell line"
/tissue_type="epidermoid"
/tissue_type="epidermoid"
/tissue_type="epidermoid"
/tissue_type="epidermoid"
/tisue_type="epidermoid"
/tissue_type="epidermoid"
/tisue_type="epidermoid"
/tisue_type="e
                                                                                                                                                                                                                                                                                                                                                                                                                                   1.13e-94
1513.00
94.6%
93.9%
50.7%
                                                                                                                                                                                                                                                                                                                                            x BQ923700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . 915
                                                                                                                                                                                                                                                                                                                                                     (1-915)
                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                       915
295
2
1
12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                þ
                                                                                           176
    120
                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                        156
```

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 4
BU526609
LOCUS
                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                   SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 श्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   망
                                                                                     FEATURES
                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                       DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                        source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                          Hominidae; Homo.

1 (bases 1 to 954)

NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)

Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov

Tissue Procurement: ATCC
                                                                               cDNA Library Preparation: Rubin Laboratory
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM2697 row: h column: 03
High quality sequence stop: 627.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                              BU526609 954 bp r
AGENCOURT 10181753 NIH MCC 101 Homo
IMAGE:6536307 5', mRNA sequence.
BU526609
BU526609.1 GI:22837050
EST.
                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuProProProAlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProAlaLeuAlaGlnGlyGlyProGlnGlySerTrp 447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PheProArgProIleTrpSerAlaSerProProArgAlaProArgSerSerThrProCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ArgGlyGlyLygThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACACTGTGCTCAAGCATCTTANGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -ProGlyGlyAlaValArg-GluAspThrTyr-ProValGlyThrGlnGlyValProSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCAACCCCAGCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AspThrValLeuLysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGTGTGGCCCGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ArgCysGlyProTrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCCCGCGGCCCATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGTGGCGGGAAGACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGC-CCACCAGCCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                               sapiens (human)
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:6536307"
/clssue_type="epidermoid carcinoma,
                                                        organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCGGGGAAGACACCTACCCCTGGGGGCACTCAAGGTGTGCCCCAN
                                                                                                                                                                                                                                                                                                                     Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -eeeccree
                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA 1
o sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         911
                                                                                                                                                                                                                                                                 Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                  linear EST 13-SEP-2002 CDNA clone
    cell line"
                                                                                                                                                                                                                                                                 Collection (MGC)
                                                                                                                                                      þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                       S
                                                     밁
                                                                               á
                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best
  밁
                                                                                                          밁
                                                                                                                                                                 문
                                                                                                                                                                                          S
                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred.
Score
Perce
                                                                                                                                                                                                                                                                                                                                                                                       몽
                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                              뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               á
                                                        661
                                                                                393
                                                                                                             601
                                                                                                                                       373
                                                                                                                                                                 541
                                                                                                                                                                                             353
                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                          301
 721
                                                                                                                                                                                                                                                  333
                                                                                                                                                                                                                                                                                                        313
                                                                                                                                                                                                                                                                                                                                                             293
                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                    273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
 ValProAlaSerArgGlyGlyLysThrLeuCysLysGlyAspArgGlnAlaProProGly
                                                                                                                                                                                 LysGlnGlyAspLeuProProProAlaLysProGluGlnGlySerSerAlaSerArgPro 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlnGlyLeuGlnAspGlnGlnGluHisValValAlaThrSerGlnProLysThrMetGly
                                                                        ProProAlaArgPheProArgProIleTrpSerAlaSerProProArgAlaProArgSer
                                                                                                                                                                                                                        GCCAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGA
                                                                                                                                                                                                                                                                                                                                                GlyGluGlnAlaLeuMetProIleThrArgIleAlaPheLysValGlnGlnLysArgLeu 312
                                                                                                                                                                                                                                                                                                                                                                                                          LeuIleAspGlyIleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuValGlu 292
                                                                                                                                                                                                                                                                                                                                                                                                                                                               HisGlnAspLysLysAspLeuCysGlyGlnCysSerProLeuGlyCysLeuIleArgIle
                                                                                                            AAGCAGGGGGACCTGCAACCCCCAGCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCT
                                                                                                                                                                                                                                          AlaArgAspGluAspThrValLeuLysHisLeuArgAlaSerMetLysLysLeuThrArg
                                                                                                                                                                                                                                                                            ACGAAGACGTCCAGGTGTGGCCCGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGG
                                                                                                                                                                                                                                                                                                  ThrLysThrSerArgCysGlyProTrpAlaArgPheCysAsnArgPheValAspThrTrp 332
                                                                                                                                                                                                                                                                                                                                   GGCGAACAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                               CATCAGGACAAGAAGATCTATGTGGGCAGTGTTCCCCCGTTAGGCTGCCTCATCCGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGGGCTCCAAGACCAACAGGAGCATGTGGTAGCCACGTCACAACCCAAGACCATGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCTGGCCAGTGAGAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LeuLeuAlaSerGluArgHisSerLeuGlnGlyPheHisSerProAsnGlyGlyThrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCGCCGCCTTGTTCCTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAG
                                                                                                                                                                                                                                                                                                                                                                                       TTGATTGACGGGATCTCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAA
```

480

420

360

300 272 252 180

240

540

432

780

412

660 392 600

720

/lab_host="DH10B (phage-resistant)" /clone lib="NTH MGC 101"

3 8 1 8 1 X /	/note="Organ: lung; Vecto XXnOI; cDNA made by Oligo- into EcoRI/XhoI sites usi GGCACGAG(G). Library cons laboratory of Gerald M. R Barkeley) using ZAP-CDNA Superacript II RT (Life T	ung; Vector: port by oligo-dT prin sites using the brary constructed erald M. Rubin (U ZAP-cDNA synthes RT (Life Technol)	/note="Organ: lung; Vector: pOTB7; Site_1: ECORI; Site_2: XhOI; cDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-CDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies) Note: this is a	ក្នុង ជ័រ ក្នុង ក្នុង
IN N	NIH_MGC Library."	• =		
nment Scores:				
. No.:	1.24e-90	Length:	954	
е:	1455.00	Matches:	283	
ent Similarity:	94.4%	Conservative:	N	
Local Similarity:	93.7%	Mismatches:	11	
y Match:	48.8%	Indels:	6	
	υ	Gaps:	N	
0-071-838-2 (1-549) x BU526609 (1-954)	ж ви526609 (1-954)		
173 IleLeuLeu	AlaTyrGluGluT	yrAsnProGluValGl	173 IleLeuLeuAlaTyrGluGluTyrAsnProGluValGlyTyrCysArgAspLeuSerHis 192	192
I AICCICCIC	3GCATATGAGGAGT	ATAACCCGGAGGTGGG	ATCTTCTGGCATGAGGAGTATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCAC	đ
61 ATCGCCGCC	CTTGTTCCTCCTCT.	ATCTTCCTGAGGAGGAT		120

```
JOURNAL COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 5
BI753688
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
                      á
                                                    밁
                                                                                                                                  Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
밁
                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                        US-10-071-838-2
                                                                                                                                                                                                                    Alignment
                                                                                                                                                                                                       о
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BI753688
BI753688.1
EST.
                                                                               56
 63
                        76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLN
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information
found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hominidae; Homo.

1 (bases 1 to 909)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian
Unpublished (1999)

Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BI753688
603023590F1 NIH_MGC_114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        http://image.llnl.gov
Plate: LLAM11485 row: d column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                     GGGAAACTCCATGGCCCCCGCCTCCCAACGGACCTGGGACGTTAAAGGGGGCCCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGCCCAGCCCGGCCCCTGGCTCAAGGAGGAACCTCAGGGTTCCTGGGAGATCCTGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ValProSerProAla-LeuAlaGlnGlyGly-ProGlnGlySerTrpArgPheLeu--Gl 451
 GAGCAAGTGGGTGGATATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAAGCTCAT
               (1-549)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           quality sequence stop: 884.
Location/Qualifiers
                                                                                                                                                                                                                                                                     /lab_host="NH108"
/clone_lib="NIH_MGC_114"
/clone_lib="NIH_MGC_114"
/note="Organ: brain; Vector: pCMV-SPORT6; Site_1: Not1;
/note="Organ: brain; Vector: pCMV-SPORT6; Site_1: Not1;
/note="Organ: brain; Vector: pNA source anonymous pool of 6
male_brains, age range_31-27 yo. Library is oligo-dr
primed and directionally cloned (EcoRV site is destroyed
upon cloning). Average insert size 1.5 kb, insert size
range 1-3 kb. Library is normalized and enriched for
full-length clones and was constructed by C. Gruber
(Invitrogen). Research Genetics tracking code 019. Note:
                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:5193959"
                                                                                                                                                                                                                                                           (Invitrogen). Research Ge
chis is a NIH_MGC Library."
                                                                                                                                     1.27e-89
1440.00
94.8%
93.8%
48.3%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GI:15745266
                                                                                                        x BI753688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         909
Homo
                                                                                                           (1-909)
                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         bp mR
sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mRNA linear EST 25-SEP-2001 ns cDNA clone IMAGE:5193959 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gene
                                                                                                                                     909
288
9
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (LLNL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                            95
                                                       62
  REFERENCE
AUTHORS
TITLE
                                                                                                          ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                             S
                                                                                   ORGANISM
```

```
RESULT 6
CD653466
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                             663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             123
                                                                                                                                                                                      353
                                                                                                                                                                                                                        843
                                                                                                                                                                                                                                                           334
                                                                                                                                                                                                                                                                                                 783
                                                                                                                                                                                                                                                                                                                                   315
                                                                                                                                                                                                                                                                                                                                                                       723
                                                                                                                                                                                                                                                                                                                                                                                                         295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         115
                                                                                                                                                  903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             95
CD653466 868 bp mRNA linear EST 18-JUN-2003
AGENCOURT 14539069 NIA Human H1 Embryonic Stem Cell cDNA Library
(Long) Homo sapiens cDNA clone IMAGE:30423486 5', mRNA sequence.
CD653466
CD653466.1 GI:31891804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           uAsmIleGluGluMetLysLeuLysAsmProGlyArgTyrGlnIleMetLysGluLysGl 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       aSerGluArgHisSerLeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            aLeuPheLeuLeuTyrLeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCATATGAGGAGTATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    UAlaTyrGluGluTyrAsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAl 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCATATATTCTTCAGGGATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAAGAGGTCATCTGAGCACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YLYSAIGSerSerGluHisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAACACTGAGGAAATGAAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                eAspArgAlaTyrLysGlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLe
                                                                                                                                                  GCACGGG
                                                                                                                                                                                      eGlnGly 355
                                                                                                                                                                                                                                               ArgAsp-GluAspThrValLeuLysHisLeuArgAlaSerMetLysLysLeuThrArgLy
                                                                                                                                                                                                                                                                                                 CGTTCACGGTGTGGCCCGTGGGGCCACGTTTTTGCAACGGGTTCGTAGATACCTGGGGCC
                                                                                                                                                                                                                                                                                                                    hr-SerArgCysGlyProTrpAla--ArgPheCysAsnArgPheValAspThrTrp-Ala
                                                                                                                                                                                                                                                                                                                                                                       GGCGTAGATGCCGAATTACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGA
                                                                                                                                                                                                                                                                                                                                                                                            nAlaLeuMetPro-IleThrArgIleAlaPheLy8ValGlnGlnLy8ArgLeuThrLy8T
                                                                                                                                                                                                                                                                                                                                                                                                                                               CGGGATCTCTCGGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                pGlyIleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAGAAAGATCTATGTGGGCAGTGTTCCCCCGTTAGGCTGCCTCATCCGGATATCGATTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pLysLysAspLeuCysGlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               uGlnAspGlnGlnGluHisValValAlaThrSerGlnProLysThrMetGlyHisGlnAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGTGAGAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTGTTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SHisIlePhePheArgAspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLe
                                                                                                                                                                                                                        AGGCATTGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGGAAACTAACAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGA
                                                                                                                                                                                                                                                                                                                                       333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          242
                                                                                                                                                                                                                              902
                                                                                                                                                                                                                                                                                                    842
                                                                                                                                                                                                                                                                                                                                                                           782
                                                                                                                                                                                                                                                                                                                                                                                                               315
                                                                                                                                                                                                                                                                                                                                                                                                                                                 722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        155
```

Hominidae; Homo. 1 (bases 1 to 868) NIH-MGC http://mgc.nci.nih.gov/. National Institutes of Health, Mammalian

Gene

Collection

Eukaryota; Metazoa; Mammalia; Eutheria;

Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini;

Homo sapiens Homo sapiens

(human)

EST

```
밁
                          ঠ
                                                                                        Query
B:
                                                                                                                    Percent Similarity:
Best Local Similari
                                                          US-10-071-838-2 (1-549)
                                                                                                                                                                  Pred. No.:
                                                                                                                                                                                  Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                                                       Match:
                 151 GlyThrLeuArgLysHisIlePhePheArgAspArgTyrGlyThrLysGlnArgGluLeu
                                                                                                                      Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA Library Preparation: Yulan Piao and Minoru Ko
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC c
lone distribution information
can be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: NDAM504 row: j column: 07
High quality sequence stop: 695.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Irene Ginis and Mahendra Rao, NIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished (1999)
Contact: Daniela S. Gerha
Office of Cancer Genomics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       National Cancer Institute / NIH
Bldg. 31 Rm10A07 Bethesda, MD 20892
GGTAATCCAAGGAAGCATATATTCTTCAGGGATCGATACGGAACCAAGCAGCGGGAACTA
                                                                                                                                                                                                                       3.4g of total RNA, treated with T4 DNA polymerase, and purified by ethanol-precipitation. The cDNAs were ligated to Lone-linker LL-Sal4, purified by phenol/chloroform extraction, and separated from free linkers by Centricon-100 column. Then, the cDNAs were amplified by long-range high fidelity PCR using Ex Taq polymerase (Takara) with a primer Sal4-S for 25 cycles. The products were purified by phenol/chloroform extraction and Centricon-100 column. The cDNAs were digested with SalI and NotI enzymes and cloned into SalI/NotI site of pCMV-SPORT6 plasmid vector. The average insert size is about 3.6kb."
                                                                                                                                                                                                                                                                                                                                                                                                     /clone lib="NIA Human Hi Embryonic Stem Cell cDNA Library (Long)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /tissue_type="Embryonic Stem cells"
/cell_line="WA01"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /db_xref="taxon:9606"
/clone="IMAGE:30423486"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /lab_host="DH10B (T1 phage-resistant)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Homo sapiens"
                                                                                        1.05e-86
1397.50
94.1%
93.4%
46.8%
                                                          x CD653466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             _type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gerhard,
                                                          (1-868)
                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
                                                                                                      Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ph.D.
                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                        뫄
                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
```

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                             RESULT 7
BU542901
                                                                                                                                                                                                                                                                                  LOCUS
DEFINITION
                                                                                                                                                                            SOURCE
                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                  KEYWORDS
                                                                                                                                                                                                                      VERSION
                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               544
                                                                                                                                                                                                                                                                                                                                                                                                                                      430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           64
Hominidae; Homo.

1 (bases 1 to 881)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)
                                                                                                                                                                                                BU542901 881 bp

AGENCOURT 10334768 NIH MGC_40 Homo

5', mRNA sequence.

BU542901

BU542901.1 GI:22853384

EST.
                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                       Homo sapiens
                                                                                                                                                                         Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ProGlyProProAlaArgPheProArgProIleTrpSerAlaSer-ProProArgAlaPr
                                                                                                                                                                                                                                                                                                                                                                                              CAGTGTGCCACCCGCC 856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OArgSerSerThrProCysProGlyGlyAlaValArgGluAspThrTyrProValGlyTh 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ArgProValProAlaSerArgGlyGlyLysThrLeuCysLysGlyAspArgGlnAlaPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThrArgLysGlnGlyAspLeuProProProAlaLysProGluGlnGlySerSerAlaSer 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ThrTrpAlaArgAspGluAspThrValLeuLysHisLeuArgAlaSerMetLysLysLeu 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ValGluGlyGluGlnAlaLeuMetProIleThrArgIleAlaPheLysValGlnGlnLys 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ArgIleLeuIleAspGlyIleSerLeuGlyLeuThrLeuArgLeuTrpAspValTyrLeu 290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MetGlyHisGlnAspLysLysAspLeuCysGlyGlnCysSerProLeuGlyCysLeuIle 270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ValGlnLeuLeuAlaSerGluArgHisSerLeuGlnGlyPheHisSerProAsnGlyGly 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCACATCCTCCTGGCATATGAGGAGTATAACCCCGGAGGTGGGCTACTGCAGGGACCTG 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuHisIleLeuLeuAlaTyrGluGluTyrAsnProGluValGlyTyrCysArgAspLeu 190
                                                                                                                                                                                                                                                                                                                                                                                                                                    rGlnGlyValProSer 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAGGNCCACCAGCCCGGTTCCCNGCGNCCAATTGGTCAGCTTCCCCCGCCACGGGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAAGAAAGCAGGGGACCTGCAACCCCCAGCCAAACCCGAGCAAGGGTCGTCGGCATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCTGGGCCAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGCCTCACGAAGACGTCCAGGTGTGGCCCCGTGGGCACGTTTTTGCAACCGGTTCGTTGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ArgLeuThrLysThrSerArgCysGlyProTrpAlaArgPheCysAsnArgPheValAsp 330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTAGAAGGCGAACAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCGTCCAGGGGCTCCAAGACCAACAGGAGCATGTGGTAGCCACGTCACAACCCCAAGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThrValGlnGlyLeuGlnAspGlnGlnGluHisValValAlaThrSerGlnProLysThr 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGCAGCTGCTGGCCAGTGAGAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGG 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCCACATCGCCGCCTTGTTCCTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SerHisIleAlaAlaLeuPheLeuLeuTyrLeuProGluGluAspAlaPheTrpAlaLeu 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCGTTCTTCCACACCCTGTCCTGGTGGGGCTGTC---NGGNAAACCTTACCTGTGGGCCT 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGGATATTGATTGACGGGATCTCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTG 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGGGGCATCAGGACAAGAAAGATCTATGTGGGCAGTGTTCCCCCGTTAGGCTGCCTCATC 363
                                                                                                                                                                                                                                                                                mRNA
sapiens
                                                                                                                                                                                                                                                                                linear EST 13-SEP-2002 CDNA clone IMAGE:6574864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               303
```

```
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                S
                                                                                                       밁
                                                                                                                                 ઇ
                                                                                                                                                                            밁
                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                       망
                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
१
                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-071-838-2 (1-549) x BU542901 (1-881)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                         360
                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                   161
                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                   420
                                                                                                                                        201
                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                           141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP
CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            High quality sequence stop: 642.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Plate: LLCM2770 row: n column: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                                                             HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                                                                                                                                                                                                                                                                                                                                 LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTGCTGGGAGACTGGGAGAA-TACAAAAGCAGCAGAAAAGCTCATAGATCGAGCGTACAAG
                                                     LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                     AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                      AspArgTyrG1yThrLysG1nArgG1uLeuLeuHisI1eLeuLeuAlaTyrG1uG1uTyr
                                                                                                                                                                                                                                                                                                                                                                                             AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCCAAGAGGTCATCTGAG
                                                                                                         CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                 LeuProGluGluAgpAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                        CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /lab host="PH108 (phage-resistant)"
/clone_lib="NIH_MGC_40"
/clone=Togan: prostate, Vector: pOTB7; Site_1: XhoI;
/note="Organ: prostate, Vector: pOTB7; Site_1: XhoI;
Site_2: EGGRI; cDNA made by oligo-dT priming.
Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone="IMAGE:6574864"
/tissue_type="carcinoma, cell line"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          è
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7.48e-83
1342.00
91.4%
88.7%
45.0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        _type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 881
267
8
17
11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ğ
                                                                                                                                                                                                                                                                                                                                                               160
                                      479
                                                                          240
                                                                                                               419
                                                                                                                                                                                 359
                                                                                                                                                                                                                    200
                                                                                                                                                                                                                                                       299
                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                            239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           59
```

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 8
BM560320
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
                                                                                                                                                                                     source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       340 uLysHis---LeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGENCOURT 6564065 NIH_MGC_119 Homo 5', mRNA Bequence.
BM560320
                                                                                                                                                                                                                                                                                                    Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                     1 (bases 1 to 1013)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
                                                                                                                                                                                                                                                     found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLAM12766 row: 1 column: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BM560320.1 GI:18804652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             γ 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TrpAlaArgPheCysAsnArgPheValAspThrTrp-AlaArgAspGluAspThrValLe 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ThrArgIleAlaPheLy8ValGlnGlnLy8ArgLeuThrLy8ThrSerArgCy8GlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAAGAATCGCCTTTAAAGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        oProAlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTG-GCAAACCCCCAG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAAGCAATCTTAAGGGCCTCCTATGAAAGAAACCTAACCAAGAAAAGGCCAGGGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGGCCAGGGATGAAGACACTGGTGC
                                                                                                                                                                                                     quality sequence start: 36 quality sequence stop: 745. Location/Qualifiers
/clone=IMAGE:5744726"
/tissue_type="medulla"
/lab_host="DH10B"
/clone_lib="WIH MGC_119"
/clone_lib="WIH MGC_119"
/note="organ: brain; Vector: pCMV-SPORT6; Site_1: NotI;
Site_2: EcoRV (destroyed); RNA source normal medulla from anonymous male age 27. Library is oligo-dr primed and directionally cloned (EcoRV site is destroyed upon
                                                                                                                                   /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                         .1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCACAACCCCGAAACCAAAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                             Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear EST 20-FEB-2002
CDNA clone IMAGE:5744726
                                                                                                                                                                                                                                                                                                                                                                                                                                           Collection (MGC)
                                                                                                                                                                                                                                                                                                           þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  779
```

Best Local Si Query Match: DB:

US-10-071-838-2 (1-549) x BM560320 (1-1013)

Percent Similarity: Best Local Similarity:

1.58e-82 1338.50 93.4% 88.6% 44.9%

Conservative: Mismatches: Indels:

1013 257 14 15 4

Gaps:

Alignment Pred. No.:

. No.:

Score:

```
AspargTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePheArg
                                                                                                                                 HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                           LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                                                                                                                                                                                               ACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                         AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACATCCAGCAGATGGACCTGGACGTAAGTGGGACATTAAGGAGGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                                    CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGGCTCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                          CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                   LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGGAGGAGGAGGTCATCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGGACGTGGTAGAGGTCGTGGGTAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                -GlyGlnCysSer-ProLeuGlyCysLeuIleArg-IleLeuIleAsg---GlyIleSer 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAATTCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCTACAACAACAACATCGATCACTTTGGGATGCAGCATGAGACGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MetABpValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGCTGGGAGAATGGGACACCTACAAAAACAGCAGAAAGCTCATAGATCGAGCGTACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTGCGCGGGAGGTGAAGCAAATTCGGCGGGAGATCAGCCGAAAGAGCAAGTGGGTGAAA 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cloning). Average insert size 1.3 kb, insert size range 0.9-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 013. Note: this is a NIH_MGC Library."
                       FTAGGCTGCCTCATCCGGGATATTGATTGAATGGGATCTCTCC
                                                                                                            877
                                                                                                                                                                                                817
                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                                             697
                                                                                                                                                                                                                                                                                                                                                                                                                       200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40
                                                                                                                                                                                                                                                                                       757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 9
BI522600
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
                                S
                                                                                                                            δ
                                                                                                                                                                                                                Ş
  뭐
                                                                                     吊
                                                                                                                                                               밁
                                                                                                                                                                                                                                                                US-10-071-838-2 (1-549) x BI522600 (1-919)
                                                                                                                                                                                                                                                                                                                                                                                                  Score:
                                                                                                                                                                                                                                                                                                                                                                                                                         Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                              Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
  121
                                       339
                                                                                                                                                                                                                         299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           938
                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLN DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLAM11605 row: g column: 03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 919)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, M
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BI522600.1 GI:15347392
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BI522600 919 bp mRNA linear EST 29-AUG-20
603175612F1 NIH_MGC_121 Homo sapiens cDNA clone IMAGE:5240090 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hominidae; Homo
                                                                                                                                                                                                    ProIleThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCys 318
                                                                                                            GlyProTrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThr 338
                                                                                                                                                                           CCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGT
GTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCAA
                         ValLeuLysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuPro 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCGGGCTCACCCCTGCGCCTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuGlyLeuThrLeuArgLeuTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          quality sequence stop: 834.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone lib="NIH_MGC_121"
//clone lib="NIH_MGC_121"
//note="Organ: brain; Vector: pCMV-SPORT6; Site_1: Not1;
/inote="Organ: brain; Vector: pCMV-SPORT6; Site_1: Not1;
Site_2: ECORV (destroyed); RNA source anonymous pool of 3
fetal brains, female age 20 weeks, female age 24 weeks,
and male age 26 weeks. Library is oligo-dT primed and
directionally cloned (ECORV site is destroyed upon
cloning). Average insert size 1.7 kb, insert size range
0.7-3.5 kb. Library is normalized and enriched for
full-length clones and was constructed by C. Gruber
(Invitrogen). Research Genetics tracking code 017. Note:
this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone="IMAGE:5240090"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                               2.42e-82
1335.00
98.0%
98.0%
44.8%
                                                                                       TTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGTATGAGGACACT
                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                     Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mammalian
                                                                                                                                                                                                                                                                                                            919
247
0
4
2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EST 29-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (LLNL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           e
e
                                                                                     120
                                                                                                                                                                        60
```

र्

밁 S 밁 ક

758

221 869 201 638

밁

음 중

261 818 밁 ঠ 밁 S 밁 ঠ

> 181 578 161 518 141 458

밁 ş 밁 S

> 121 398 101 338

8 B

218

278

61

81

ð 밁 ક g δ

41

158

21 98

밁 र् 밁

```
RESULT 10
BQ920917
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                    COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KEYWORDS
                                             Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BQ920917

AGENCOURT 8926259 NIH_MGC_101 H

5', mRNA sequence.

BQ920917

BQ920917.1 GI:22335834

EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                    cDNA Library Preparation: Rubin Laboratory CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                  Hominidae; Homo.

1 (bases 1 to 930)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian

Unpublished (1999)
                                                                                                                                                                                                                                         Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  uHisLeuGluSerSerGlnPheProProGlyPhe 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyLysThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPhePro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oPheArgAlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgProIleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCCCAGCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProProAlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGly
                                                           late: LLCM2653 row: f column: igh quality sequence stop: 658.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCAGAGCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AlaGluArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThr-Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGTCCGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TrpValArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProThrAspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AlaGlnGlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeu
/organism="Homo sapiens"
/mol_type="mRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                bp
1 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA
                                                                                                                                                                                                                                                                                                                        Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear ES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EST 20-AUG-2002
1e IMAGE:6462826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity:
Query Match:
                                                                                                        벍
                                                                                                                                           S
                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-071-838-2 (1-549) x BQ920917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score:
                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
                                                                   382
                                                                                                          599
                                                                                                                                                                                      539
                                                                                                                                                                                                                          342
                                                                                                                                                                                                                                                                   479
                                                                                                                                                                                                                                                                                                                                                 419
                                                                                                                                                                                                                                                                                                                                                                                      302
                                                                                                                                                                                                                                                                                                                                                                                                                               359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              162
                              659
                                                                                                                                               362
                                                                                                                                                                                                                                                                                                          322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGluHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSerLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyrLeu
                                                         LeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgProIle
                                                                                                                                                                                                              HisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProAla
                                                                                                                                                                                                                                                                                      AlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeuLys
                                                                                                                                                                                                                                                                                                                                               AGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCGTGG
                                                                                                                                                                                                                                                                                                                                                                     ArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyProTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIleThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGlyLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCysGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTGAGGAGGATGA-TTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCCCTG
                                CTCTGCAAGGGGACAGGCCAGCCCTCCAGGCCCACCAGCCCGGTTCCCGGGCCCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /db xref="taxon:9606"
/clone="MAGE:6462826"
/tissue_type="epidermoid carcinoma, cell line"
/lab hoste="DHIOB (phage-resistant)"
/clone_lib="NIH_MGC_101"
/clone_lib="NIH_MGC_101"
/clone_Tib="NIH_MGC_101"
/clone="NIH_MGC_101"
/clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.42e-81
1324.00
90.3%
88.7%
44.4%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (1-930)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         930
275
5
17
17
```

658 381 598

US-10-071-838-2 (1-549) x BM553146 (1-1141)		y Match: 44.4%		Pred. No.: 2.21e-81 Length: Score: 1323.00 Matches:	Alignment Scores:	ŧ	(Invitrogen). Research Gen	full-length clones and	cloning). Average inse	anonymous male age 27. directionally cloned (E	/note="organ: brain; Ve Site_2: EcoRV (destroye	/lab_host="DH10B" /clone_lib="NIH_MGC_119	/tissue_type="medulla"	/db_xref="taxon:9606"	/organism="Homo sapiens" /mol type="mRNA"	rce 11141	FEATURES High quality sequence stop: 665.	Plate: LLAM12761 row: k column:	found through the I.M.A.G.E. Consortium/LINI	DNA Sequencing by: Agencourt B:	CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)	Tissue Procurement: Life Technologies,	COMMENT CONTACT: KODETT STRAUSDETG, Ph.D. Email: cgapbs-r@mail.nih.gov	AL Unpublished (1999)	NIH-MGC http://mgc.nci.nih.gov/ National Institutes of Health,	Hominidae; Homo. 1 (bases 1 to 1141)	ioa;	ORGANISM Homo sapiens (numan)	S EST.	ACCESSION BM553146 TURNSION BM553146.1 GI:18791621	DEFINITION AGENCOURT_6542478 NIH_MGC_119 Homo 5', mRNA Bequence.	BM553146	B90 TCCATTGCCCCCCCCCCCAACGGAA 915		Oy 455MetProArgLeuProThrAsp 461	Db 833 CTGGGNTCAGGGAAGGAACCTCAGGGGTTG	Qy 440 lnGlyGlyBroGlnGlySer	Db 779 TCCGGGAAGACACCCTACCCTGTGGGGAACTTCAGGGTGTGCCCAGCCCC	Qy 421 alArgGluAspThrTyrProValGly	Db 719 TGGTCAGCTTCCCCGCCACGGCACCTCG
	••	ls:	tive:	th: 1141 hes: 276			Research Genetics tracking code 013. Note:	was constructed by C. Gruber	ert size 1.3 kb, insert size range	Library is oligo-dT primed and ECORV site is destroyed upon	<pre>/note="organ: brain; Vector: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV (destroyed); RNA source normal medulla from</pre>	9"						n: 11	nsortium/LLNL at:		.M.A.G.E. Consortium (LLNL)	logies, Inc.	<u>.</u>	,	Mammalian Gene Collection (MGC)		Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini;				sapiens	mRNA linear EST 20-FEB-2002	(m			 CTGGGNTCAGGGAAGGAACCTCAGGGGTTCCCTGGAAAATTCCCTGGCAGGGGGAAC 889	TrpArgPheLeuGlnTrpAsnSer 454	ACTTCAGGGTGTGCCCAGCCCCGGGC 832	lArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaG 440	TGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCCTGTCCCTGGTGGGGCCTG 778
	Db 957 CGGTGCTCAAGCACCTTTTTGGGCCTCTCTGTAATAAACTACCCGGAAAAACGCAGGGGC 1016	Qy 339ValLeuLysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspL 357	Db 897 CCCGGCCCCTTCTTTACAACGCGGTTCCTTTGTACCTTGGGTCAGGCAATCGGGGACCC 956	Qy 320 oTrpAlaArgPheCysAsnArgPheValAspThr-TrpAlaArgAspGluAspThr- 338	Db 859GACTCAÀAACGCCTCACCAAGACTCCCAATTGTTGGCC 896	Cy 300 ellikigilektarnenysvaletnelninyskighenininkysiniserkigelyri 320	200 200 200 200 200 200 200 200 200 200	Db 858 858	Qy 280 yLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIl 300	Db 858 858	Qy 260 sGlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGl 280		QY 240 UH18VALVALAIRINTSETGINPTOLYSTRIMETGIJH18GIRASDLYSLYSLSSDLEUCY 260		260 COLUMN TO THE TANK TO THE TANK THE	Qy 220 rieuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGl 240	Db 702 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAAAAGGCATTC 761	Qy 201 LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGlu-ArgHisSe 220	642		Qy 181 AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr 200	Db 582 GATCGATACGGAACCAAGCAGCGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 641	Qy 161 AspArgTyrGlyThriysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 180				462 AAGATGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG	Ov 121 LvsLeuLvsAsnProGlvArqTvrGlnIleMetLvsGluLvsGlvLvsArqSerSerGlu 140	Db 402 GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG 461	Qy 101 GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 120	Db 342 ATGCTGGGAGAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG 401	MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys	282 ACTGCGCGGAGGCGAAGCAAATTCGGCGGGAGATCAGCCGGAAAGAGAGTGGGTGG	Oy 61 ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp 80	Db 222 AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG 281	Oy 41 SerTyrAsnAsnAsnAsnHisLeuGlyIleValHisGluThrGluLeuProProLeu 60	162 AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA 221	21 LysTyrGluLysGlyH18ArgAlaGlyLeuProGluAspLysGlyProLysProPheArg	102 ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG	

459 120 399

519

100

60 219

80 279

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 12
BM563571
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
밁
                          ફ
                                                                                                         Best Local S:
Query Match:
                                                              US-10-071-838-2 (1-549) x BM563571
                                                                                                                                          Percent Similarity:
                                                                                                                                                       Score:
                                                                                                                                                                         Pred. No.:
                                                                                                                                                                                        Alignment
                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           воитсе
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    357
                                                                                                                                                                                        Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        389
 100
                                                                                                                           Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1079 bp
AGENCOURT 6564823 NIH MGC_119 Homo
5', mRNA Bequence.
BM563571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 (bases 1 to 1079)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BM563571.1 GI:18810609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleo
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          http://image.llnl.gov
Plate: LLAM12764 row: n column:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCCA 1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          laPro 390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  laSerArgProValProAlaSerArgGlyGlyLysThrLeuCysLysGlyAspArgGlnA 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACCCGTGTCCCCCCCCCCACCCAGCGCTCTAAGAAGGGGGTCCACATGCATCCCAACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    euPro---
ATGGACGTGGTAGAGGTCGCGGGTAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                  MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         quality sequence stop: 665.
Location/Qualifiers
                                                                                                                                                                                                                                  /clone lib="NIH_MGC_119"
/clone lib="NIH_MGC_119"
/note="Organ: brain; Vector: pCMV-SPORT6; Site_1: NotI;
Site_2: ECORV (destroyed); RNA source normal medulla from anonymous male age 27. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.3 kb, insert size range 0.9-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 013. Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                              /tissue_type="medulla"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:5744077"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             organism="Homo sapiens"
                                                                                            5.38e-80
1302.50
91.9%
88.8%
43.7%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----ProProAlaLysProGluGlnGlySer-----SerA
                                                              (1-1079)
                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gene
                                                                                            1079
262
9
15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Collection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST 20-FEB-2002
ne IMAGE:5744077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       . 369
   REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                          RESULT 13
BI828272
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                               KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                             ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           160
                                                                                                                                                                                                                                                                                                                                         880
                                                                                                                                                                                                                                                                                                                                                                                                     820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 280
                                                                                                                                                                                                                                                                            940
                                                                                                                                                                                                                                                                                                          277
                                                                                                                                                                                                                                                                                                                                                                     258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    81 MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21
                                                                                                                                                                BI82827
                                                                                                                                                                                        603078163F1 NIH_MGC_119
   1 (bases 1 to 831)
NIH-MGC http://mgc.nci.nih.gov/
National Institutes of Health,
                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                  Homo sapiens
                                                                                                                                               BI828272.1 GI:15939822
                                                                                                                                                                           mRNA sequence.
                                                                                                                                                                                                              BI828272
                                                    lominidae; Homo
                                                                                                                domo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LysTyrCluLysGlyHisArgAlaGlyLeuProGluAspLySGlyProLysProPheArg 40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThralaargGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                                                        AsnProGluValGlyTyrCysArgAspLeuSer-HisIleAlaAlaLeuPheLeuLeuTy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           HisileGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                                                                                                                                                                                                                                                              lu-HisValValAla---ThrSerGlnProLysThrMetGlyHisGln-AspLysLysAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rLeuGlnGlyPheHisSerProAsn-GlyGlyThrValGlnGlyLeuGlnAspGlnGlnG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rLeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACATCCAGCGCATCGACCGGGACATAAGCGGACATTAAGGAAGCATATGTTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTCTCTCGGGTTCACCCCTGCGCCTGG
                                                                                                                                                                                                                                                                                                       leSerLeuGlyLeuThrLeuArgLeuTrp
                                                                                                                                                                                                                                                                                                                                                                                                     AAGCATGTGGGTAGCCACGTTCACCATCCAAGACCATGGGGGCATCAGGGACAGGAAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTGCAGGGATTTCACAGCCCAAATGGGCGGGACGTCCAGGGGGCTCCCAGACCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTC
                                                                                                                                                                                               Homo
                                                                                                                                                                                               bp mR
sapiens
        Mammalian
                                                                                                                                                                                               mRNA linear EST 04-OCT-2001
18 cDNA clone IMAGE:5169999 5',
```

277 879 258 819

939

759 220 699 200 639 180 579

240

Gene

Collection (MGC)

```
ð
                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                             S
밁
                        S
                                                                        밁
                                                                                                         8
                                                                                                                                                       밁
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-071-838-2 (1-549) x BI828272 (1-831)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Х
О.:
                                                                                                                                                         302
                                                                                                                                                                                                                                      242
                                                                                                                                                                                                                                                                                                                  182
                                                                                                                                                                                                                                                                                                                                                                                               122
                                                                                                                                                                                                                                                                                                                                                                                                                                      188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM11422 row: n column: 16
High quality sequence stop: 822.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.B. Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Contact: Robert
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyrAsnProGluValGlyTyrCys 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AspValSerGlyThrLeuArgLysHisIlePhePheArgAspArgTyrGlyThrLysGln 167
                    ValTyrLeuValGluGlyGluGlnAlaLeuMetProIleThrArgIleAlaPheLysVal
                                                                                               CysLeuIleArgIleLeuIleAspGlyIleSerLeuGlyLeuThrLeuArgLeuTrpAsp
                                                                                                                                                                              ProLysThrMetGlyHisGlnAspLysLysAspLeuCysGlyGlnCysSerProLeuGly 267
                                                                                                                                                                                                                                 AATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAGCATGTGGTAGCCACGTCACAA
                                                                                                                                                                                                                                                        AsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGluHisValValAlaThrSerGln
                                                                                                                                                                                                                                                                                                              TGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCCCTGCAGGGATTTCACAGCCCA
                                                                                                                                                                                                                                                                                                                                       TrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSerLeuGlnGlyPheHisSerPro 227
                                                                                                                                                                                                                                                                                                                                                                                             AGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTATCTTCCTGAGGAGGATGCATTC
                                                                                                                                                                                                                                                                                                                                                                                                                      ArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyrLeuProGluGluAspAlaPhe 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTATAACCCGGAGGTGGGCTACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACATAAGCGGGACATTAAGGAAGCATATGTTCTTCAGGGATCGATACGGAACCAAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /clone_lib="NIH_MGC_119"
/note="Organ: brain; Vector: pCMV-SPORT6; Site_1: NotI;
/note="Organ: brain; Vector: pCMV-SPORT6; Site_1: NotI;
/note="Organ: brain; Vector: pCMV-SPORT6; Site_1: NotI;
/note="Organ: brain; Vector: pCMV-SPORT6; Site_1: notInternational medulia from anonymous male age 27. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.3 kb, insert size range 0.9-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 013. Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     organism="Homo sapiens"

/mol_type="mRNA"

/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone="IMAGE:5169999"
/tissue_type="medulla"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4.5e-78
1272.50
93.0%
91.9%
42.7%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . 831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Strausberg, Ph.D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               831
261
3
10
16
                                 307
                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                       247
                                                                                                                                                                                                                                                                                                              241
                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
BI088323
LOCUS
                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM
                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        482
                                                                                                                                                                                                                                                   cDNA Library Preparation: Life Technologies, Inc. CDNA Library Arrayed by: Incyte Genomics, Inc. DNA Sequencing by: Incyte Genomics, Inc. Clone distribution: MGC clone distribution information found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLAMI1016 row: i column: 23 High quality sequence stop: 709.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hominidae; Homo.

1 (bases 1 to 709)

NIH-MCC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BI088323 709 bp r
602852793F1 NIH_MGC_10 Homo sapiens
mRNA sequence.
BI088323
BI088323 GI:14506653
EST.
                                                                                                                                                                                                                                                                                                                                                                                                                 Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGACACCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    uAspThrTyr 426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAGACCCTCTGCAAGGGGGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           rSerAlaSerArgProValProAlaSerArgGlyGlyLysThrLeuCysLysGlyAspAr 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tLysLysLeuThrArgLysGlnGlyAspLeuProProProAlaLysProGluGlnGlySe 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PheValAspThrTrpAla-ArgAspGluAspThrValLeuLysHisLeuArgAlaSerMe 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCCGTGGGCACGTTTTTTGCAACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlnGlnLy8ArgLeuThrLy8ThrSerArgCy8GlyProTrpAlaArgPheCy8A8nArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACGGGC-CCTCGTTCTTCCAACCCTGTCTGGTGGGGCTGTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               oArgAlaProArgSerSerThrPro----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCAGGCCCTCCAGGCCCACA-GCCCGGTT-CCGCGGCCATT-TGGTCAGCTTC-CCGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gGlnAlaProProGlyProProAlaArgPheProArgProIleTrpSerAlaSerProPr 407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAGAAACTAACAAGAAAAGCAGGGGGACCTGCCACC-CCAGCCAAACCCGAGCAAGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCGTTGATACCTGGGCCCAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens (human)
/organism="Homo sapiens"
/mol type="mRNA"
/mol type="mRNA"
/mol type="mRNA"
/mol type="mRNA"
/db xref="taxon:9606"
/db xref="taxon:9606"
/clone="IMAGE:4994398"
/cell line="MGC36"
/lab_host="BH10B"
/clone_lib="NIH_MGC_10"
/clone_lib="NIH_MGC_10"
/note="Organ: cervix; Vector: pCMV-SpORT6; Site_1: NotI;
Site_2: SalI; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.5 kb. Library prepared by Life
Technologies."
                                                                                                                                                                                                                                      ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       n.RNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CysProGlyGlyAlaValArgGl 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IMAGE:4994398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EST 20-JUN-2001
3:4994398 5',
                                                                                                                                                                                                                                                                                                                                    can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           601
```

Alignment Scores:

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                   RESULT 15
BQ891586
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query
DB:
                                                                                           ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                            ð
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                멍
                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
                                                             SOURCE
                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-10-071-838-2 (1-549)
                                                                                                                          DEFINITION
                                                                                  KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        No.:
                                                                                  946 b.
946 AGENCOURT_8670678 NIH_MGC_40 H.
5', mkNA sequence.
BQ891586 BQ891586.1 GI:22283600
EST.
                                                                                                                                                                                                                                                                                                    482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                182
                                                                                                                                                                                                                      602
                                                                                                                                                                                                                                                                                                                                               422
                                                                                                                                                                                                                                                                                                                                                                                       362
                                                                                                                                                                                                                                                                                                                                                                                                                               302
                                                                                                                                                                                                                                                                                                                                                                                                                                                   147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   107
                                                                                                                                                                              662
                                                                                                                                                                                                267
                                                                                                                                                                                                                                                                                                                         207
                                                                                                                                                                                                                                                                                                                                                                                                          167
                                                                                                                                                                                                                                                                                                                                                                  187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             47
                                  Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
1 (bases 1 to 946)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
                               Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AspHisLeuGlyIleValHisGluThrGluLeuProProLeuThrAlaArgGluAlaLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlnIleArgArgGluIleSerArgLysSerLysTrpValAspMetLeuGlyAspTrpGlu
                                                                                                                                                                                                                      CAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGTGGGCAGTGTTCCCCCGTTA
                                                                                                                                                                                                                                                              ProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGluHisValValAlaThrSer
                                                                                                                                                                                                                                                                                                      TTCTGGGCACTGGTGAGCTGCTGGCCAGTGAGAGGCACTCCCTGCAGGGATTTCACAGG
                                                                                                                                                                                                                                                                                                               PheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSerLeuGlnGlyPheHisSer
                                                                                                                                                                                                                                                                                                                                                        CysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyrLeuProGluGluAspAla
                                                                                                                                                                                                                                                                                                                                                                                                   GlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyrAsnProGluValGlyTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                         ArgAspValSerGlyThrLeuArgLysHisIlePhePheArgAspArgTyrGlyThrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAGCACATCCAGCGCATCGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATGAAGTTGAAAAAACCCCCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMetLysLeuLysAsnProGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLysGlyMetProMetAsnIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCTGCCTCATCCGGATATTGATTGACGGGATCTCTCTCGGGCTCACC
                                                                                                                                                                                         GlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGlyLeuThr
                                                                                                                                                                                                                                   GlnProLysThrMetGlyHisGlnAspLysLysAspLeuCysGlyGlnCysSerProLeu
                                                                                                                                                                                                                                                                                                                                                                                      CAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTATAACCCCGGAGGTGGGCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGGGATCGATACGGAACCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAGGGAATGCCCCATGAACATC
                                                                        Bapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3.99e-76
1243.00
99.6%
99.6%
41.7%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 x BI088323
                                                                       (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (1-709)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                          bp
Homo
                                                                                                                          sapiens cDNA
                                                                                                                                      mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     709
235
0
0
  Gene
                                                                                                                          linear E
  Collection (MGC)
                                                                                                                                                                                                   282
                                                                                                                                                                               709
                                                                                                                           EST 16-AUG-2002
MAGE:6380487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                         661
                                                                                                                                                                                                                                          266
                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                  246
                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                           226
                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                   206
                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                            186
                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                     166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                           Best Local Si
Query Match:
DB:
                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMMENT
                                                           δ
                                                                                                 S
                                                                                                                            문
                                                                                                                                             5
                                                                                                                                                                                      8
                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                   Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                δ
                                          밁
                                                                                    문
                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                     US-10-071-838-2 (1-549) x BQ891586 (1-946)
                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                              Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
                                                                                    304
                                                                                                                                                161
                                                                                                                                                                     184
                                                                                                                                                                                                             124
                                                                                                                                                                                                                                                                                                                                                                                                                       Scores:
   424
                     221
                                           364
                                                               201
                                                                                                        181
                                                                                                                             244
                                                                                                                                                                                        141
                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                                              Similarity:
                                                                                                                                                                                                                                                      64
                                                                                                                                                                                                                                                                                                                   82
                                                                                                                                                                                                                                                                                              4
    GCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGCTCCAAGACCAACAGGAGCA
```

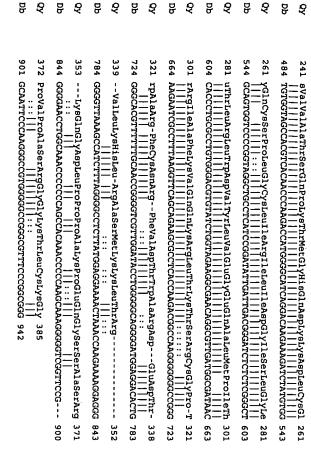
```
cDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLCM2569 row: c column: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Contact: Robert Strausberg, |
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         e: LLCM2569 row: c column: 16 quality sequence start: 2 quality sequence stop: 554. Location/Qualifiers
/note="Organ: prostate; Vector: pOTB7; Site_1: XhoI; Site_2: EcoRI; cDNA made by oligo-dT priming_ Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Strategene) and Superscript II RT (Life Technologies). Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                             /tissue_type="carcinoma, cell line
/lab_host="DH10B (phage-resistant)
/clone_lib="NIH_MGC_40"
                                                                                                                                                                                                                                                                                                                                                                               clone="IMAGE:6380487"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                      'mol_type="mRNA"
'db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                   cell line"
```

8.84e-76 1240.50 85.2% 81.4% 41.6%

Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:

946 259 12 32 4

yMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMetLy uProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSerLe nProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyrLe pArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyrAs CATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGGGA sIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArgAs ATTGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATGAA LeuGlyAspTrp-GluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLysGl TCCTGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCCCT CCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTATCT TCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTATAA 181 161 183 141 123 121 63 241 303 243 423 363 201 221



Search completed: April 5, 2006, 16:26:30 Job time: 6220 secs

The same of the sales with the same of the

This Page Blank (uspto)

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Command line parameters:

-MODEL-frame+ pln.model -DEV=xlh
-Q=/abss/ABSSWEB spool/US10071838/runat_05042006_141912_5134/app_query.fasta_1
-Q=/abss/ABSSWEB spool/US10071838/runat_05042006_1-1-LOOPCL=0 -LOOPEXT=0
-DB=N Geneseq -QFMT=fastap -SUFFIX=rng -MINNATCH=0.1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45 -DOCALIGN=200 -THR SCORE=pct -THR MAX=1100 -THR MIN=0 -ALIGN=15 -MODE-LOCAL
-OUTFMT=pto -NORM=ext -HEAPSIZE=50 -MAX=100 -THAXLEN=2000000000 -HOST=abss07
-USER=US10071838 @CGN 1 727 @runat 05042006 141912 5134 -NCPU=6 -ICPU=3
-NO MMAP -NEG SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV TIMEOUT=120
-WARN TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           on:
                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB B
                                                                                                Score
       2983
2983
2978
2978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       seq.
                                                                                                                                                                                                                                                                                                                                                                                                     N_Geneseq_21:*
1: geneseqn198
2: geneseqn199
3: geneseqn200
4: geneseqn200
5: geneseqn200
6: geneseqn200
7: geneseqn200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-10-071-838-2
2983
1 MDVVEVAGSWWAQE
                                                                                                  Query
Match
       100.0
100.0
99.8
99.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Xgapop 10.0,
Ygapop 10.0,
Fgapop 6.0,
Delop 6.0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4996997 ведв,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       April
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MDVVEVAGSWWAQEREDIIM.....TSGPCLCGLHLESSQFPPGF 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Copyright
                                                                                                                                                                                                                                                                                      geneseqn2003cs:*
geneseqn2003ds:*
geneseqn2004as:*
geneseqn2004bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                            geneseqn2000s:*
geneseqn2001as:*
geneseqn2001bs:*
                                                                                                                                                                                                                                                                                                                                                                   geneseqn2003bs: *
                                                                                                                                                                                                                                                                                                                                                                                   geneseqn2003as:*
                                                                                                                                                                                                                                                                                                                                                                                                       geneseqn2002as:*
geneseqn2002bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    geneвeqn1990в:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       geneseqn1980s:*
                                                                                                                                                                                                                                                                      geneseqn2005s:*
                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ű,
       1964
1964
1993
1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2006, 14:28:52 ; Search time 1202 Seconds (without alignments)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration
                                                                                                    B
     6 ABS54706 \
10 ADC37382
3 AAA15001
13 ADT88069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Xgapext
Ygapext
Fgapext
Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3332346308 residues
                                                                                                      ij
                                                                                                                                                              SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0.5
7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (without alignments)
3044.023 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9993994
Abs54706 cDNA enco
Adc37382 Nuclear f
Aaa15001 cDNA enco
Adt88069 Human pro
                                                                                                  Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ltd.
```

```
RESULT 1
ABS54706
ID SAFO
XX ABS5
XX ABS5
XX ABS5
XX ABS5
XX Homa
XX Huma
XX Homa
XX Homa
XX WO20
FH Key
FT CDS
FT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-FEB-2001; 2001US-0267615P
                                                                                                            08-FEB-2002; 2002WO-US003457
                                                                                                                                                                               15-AUG-2002
                                                                                                                                                                                                                                                      WO200262958-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            breast cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cDNA encoding human PRC17 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-NOV-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABS54706;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABS54706 standard; cDNA; 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2191.5
2191.5
2191.5
2191.5
2148.5
2148.5
2135.5
2135.5
2133.5
2133.5
2133.5
2133.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1795.5
1795.5
1732
1732
1732
1732
1533.5
1507.5
1507.5
1507.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2975
2963
2950
2950
2907.5
2898.5
2850
2850
2835
2827
2827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRC17; prostate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            \begin{array}{c} \mathbf{5} \\ \mathbf{
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rostate cancer; ovarian cancer; lung cancer; cytostatec; chromosome 17q11-12; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                         /*tag=  a
/product= "Human PRC17 protein"
                                                                                                                                                                                                                                                                                                                                                                                            .1650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            23146
23104
23004
20084
20084
20084
20084
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
20072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ᢐᢑᢐ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            นักด
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACN42882
ACN42884
ACN42883
AAI59633
AAI59634
AAI59634
AAI12170
AAT12170
AAT12170
AAT12170
AAT12170
AAT12170
AAT12170
AAT12170
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABZ11810
ADM44328
ADC37388
ABZ11809
ABZ118327
ADM44327
ADC37386
ADM01991
ABS78751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABS54707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADC37384
ABX71403
ADQ84596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABS54708
AAS85531
AAS88213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAS85534
AAS88214
AAS87029
AAS84009
AAS87522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABL64684
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAS36324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAS87523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAL05169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Abz11810 Human pol-
Abz11810 Human pol-
Addm44328 Novel hum
Adc37388 Nuclear f
Abz11809 Human pol-
Adm44327 Novel hum
Adc37386 Nuclear f
Adm01991 Human cDN
Abs78751 DNA encod
Abs54708 CDNA encod
Abs54708 CDNA encod
Abs64648 Stomach c
Acn42882 Human dia
Acn42882 Human dia
Acn42883 Human pol-
Aai59633 Human pol-
Aai59634 Human pol-
Aai59634 Human pol-
Aai59634 Human pol-
Aai57848 Human pol-
Addc31883 Human pol-
Addc31883 Human pol-
Addc31887 DNA encod
Aai57847 Human pol-
Aai685135 DNA encod
Aai87029 DNA encod
Aai87029 DNA encod
Aai67523 DNA encod
Aai67523 DNA encod
Aai67523 DNA encod
Aai67529 DNA encod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Adc37384 Nuclear f
Abx71403 Human cel
Adq84596 Human tum
Adq86595 Human tum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Abs54707 cDNA enco
Adc37380 Nuclear
Adc37378 Nuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ade47018 Human
```

```
Alignment Scores:
Pred. No.:
Score:
Percent Similarity:
Best Local Similarity:
Query Match:
                          δ
                                                   В
                                                                       S
                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                  Best I
Query
DB:
           밁
                                                                                               밁
                                                                                                                                         밁
                                                                                                                                                           ð
                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                              श्
                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                    S
                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                             US-10-071-838-2 (1-549) x ABS54706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to a new PRC17 polypeptide. The invention is useful for detecting cancer cells (such as prostate tissue, breast tissue, lung tissue, ovarian tissue) in a biological sample. The invention is further useful for monitoring the efficacy of a therapeutic treatment of a cancer (prostate cancer, ovarian cancer, lung cancer, breast cancer). The molecules of the invention are useful diagnostically or prognostically to detect diseases or conditions associated with altered PRC17 activity or expression relative to normal, for example cancer. The present nucleic acid sequence represents the human PRC17 protein of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel isolated PRC17 polypeptide useful diagnostically or prognostically to detect diseases or conditions associated with altered PRC17 activity or expression relative to normal, for example cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TULA-)
                                161
                                                                         141
                                                                                                361
                                                                                                                    121
           481
                                                      421
                                                                                                                                           301
                                                                                                                                                                  101
                                                                                                                                                                                      241
                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                           81
                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                 41
                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                            21
                                                                                                                                                                                                                                                                                                                                                                   μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TULARIK
                                                                                                                                                                                                                                                                                                                                                                 MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                         AspArgTyrGlyThrLysGlnArgGluLzuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                      HisileGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                             LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu 140
                                                                                                                                                       GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 120
                                                                                                                                                                                                   MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100
                                                                                                                                                                                                                                            ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                         SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1964
            GATCGATACGGAACCAAGCAGCGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                            GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                            AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                        AAATACGAAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                      LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                 AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                       ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               တ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xiang
                                                                                                                                                                                                                                                                                                                                                                                                                                             1.72e-128
2983.00
100.0%
100.0%
100.0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ָט
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Peng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ü
                                                                                                                                                                                                                                                                                                                                                                                                              (1-1964)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         561
                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ູດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                  1964
549
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ċ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                      480
                                                                           160
                                                                                                 420
                                                                                                                                                                                       300
                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                              40
                                                                                                                                                                                                                                                                                                                                                                   60
5 2 5
                                                          밁
                                                                                ঠ
                                                                                                                                                 밁
                                                                                                                                                                    5
                                                                                                                                                                                          문
                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                               닭
                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                         유 성
                                                                                                                                                                                                                                                                                                                                                                       닭
                                                                                                                                                                                                                                                                                                                                                                                            ち 유
                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                             유 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5 & 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       유성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                    1141
                                                                                                            1441
                                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                             461
                                                                                                                                                                                                                      441
                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                              401
                                                                                                                                                                                                                                                                                                                                                        381
                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                             341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                  ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                              GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                         ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
                                                                                                                                                                                                                                                                                      LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro|
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
                                                                                                                     ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                                                   AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                  GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                             GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                 ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
                                                                                                                                                                                                                                                                                                                                                                                                                         AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
  GluSerSerGlnPheProProGlyPhe
                                                                                                             CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                     ACCCTCTGCAAGGGGACAGGCAGGCCCCTCCAGGCCCAGCCGGGTTCCCGGGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCAGGGA
  549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCAAGACCAACAGGAG
                                                                                                                                  500
                                                                                                                                                                                                                                              1320
                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                   1560
                                                                                                                                                         1440
                                                                                                                                                                              480
                                                                                                                                                                                                                         460
                                                                                                                                                                                                                                                                   440
                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                      1200
                                                                                                                                                                                                                                                                                                                                                                               1140
                                                                                                                                                                                                                                                                                                                                                                                                     380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1020
                                            540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
```

```
RESULT 2
ADC37382
ID ADC37382
XX ADC37382
XX ADC37382
AC ADC3
XX Nucl
XX Nucl
XX Nucl
XX Nucl
XX Nucl
XX Nucl
XX Neux
XX Homc
XX Hom
XX Ho
                                          S
                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
Query Match:
DB:
  밁
                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                  US-10-071-838-2 (1-549) x ADC37382 (1-1964)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present invention relates to novel proteins and their coding sequences (ADC37168-ADC37455), which activate nuclear factor kapps kappaB). The proteins and their coding sequences are useful for the a disease associated with NF-kappaB activation, such as inflammatic autoimmune diseases, cancers, infectious diseases, bone diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New purified protein that activates nuclear factor kappa B (NF-ka) useful for treating inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-DEC-2001; 2001JP-00368692.

05-DEC-2001; 2001US-03358292.

03-OCT-2002; 2002JP-00291302.

04-OCT-2002; 2002US-0415769P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1964 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 4; SEQ ID NO 215; 938pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matsuda A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          neurodegenerative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-DEC-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12-JUN-2003.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO2003048202-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nuclear factor kappa B; NF-kappaB; inflammation; autoimmune disease cancer; infectious disease; bone disease; AIDS; neurodegenerative disease; ischaemic disorder; Antiinflammatory; Immunomodulator; Cytostatic; Antinicrobial; Osteopathic; Anti-HIV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Neuroprotective; Nootropic; Cardiant; Gene therapy; human; gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADC37382;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADC37382 standard; DNA; 1964 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ischemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (ASAH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1621 GAAAGTTCTCAGTTCCCTCCAGGCTTC 1647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2003-505282/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens.
13
                                                  21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADC37383.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ASAHI KASEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       factor kappa B
                              LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPh
                                                                                                                                 MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleI1.
AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTT
                                                                                                       ATGGACGTGGTAGAGGTCGCGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Muramatsu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2002WO-JP012644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                            1.72e-128
2983.00
100.0%
100.0%
100.0%
100.0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     472 A; 553 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (NF-kappaB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       infectious diseases, bone diseases, r ischaemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     561 G; 378 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  activating gene,
                                                                                                                                                                                                                                                                  1964
549
0
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       215.
```

**************************************	ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro 400	Qy 381 Db 1141 Qy 401	
21 ATGCTGGGAGACTGGGAGAATTCCAAAACCAGCAGAAAGCTCTAGAGCAGCAAAATGCAATCAAAACCTCTTAGACCAGCGGTACAAATGCAATCAAAACCTCTTAGACCAGCGGTACAAATGCATACAAAACCTCTTAGACCAGCGGTACAAATGCAATCAAAACCTCTTAGACCAGCGGTACAAATGCAATCAAAACCTCTTAGACCAACACTGAGGAAATGCAATCAAAATGCCCATGAACATGAGGACCCAATGAGCACCAAAATGCAATGAGGAAAATGCAATGAGAAAATGCCCATGAACATGAGGAAAATGCAATGAGGAAAATGCAATGAGGAAAATGCAATGAGGAAAATGCAATGAGGAAAATGCAATGAGGAAAATGCAATGAGGAAAATGCAATGAGGAAAATGCAATGAGGAAAATGCAATGAGGAAAATGCAATGAGGAAAATGCAATGAGGAAAATGCAATGAGGAAAATGCAATGAGGAAAATGCAATGAAGAAAATGCAATGAAGAAAATGCAATGAAGAAAATGCAATGAAGAAAATGCAATGAAGAAAATGCAACTCAACCCGGAAGATACCAAGTCAACCAAGAACAATACAAGAAAAAAACACCAACCA		ш	leMet 20 TTATG 60
		ы с ш	
		. ю. ш	
101 GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnITcGAGGGTACAAG 211 GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnITeGluGluMet			
	ωω	m N	treating tion, , AIDS,
		-1 A1	a B (NF-
241 ATGCTGGAGACTGGGAGAAATACAAAAGCAGAGAAGCTCATAAGATCGAGCAGAAAGCTCATAGATCGAGCAGAAAGCTCATAGATCGAGCAGAAAGCTCATAGATCGAGCAGAAAGCTCATAGATCGAGCTTACAAAGCTCATAGATCGAGCTTACAAAGCTCATAGATCGAGCTTACAAAGCTCATAGATCGAGCTTACAAAGCTCATAGATCCAAGCTTACAAAGCTCATAGATCCAAGCTTACAAAGCTCATAGATCCAAGCTTACAAAGCTCATAGATCCAAGCTTACAATTCGAGCAAATTGAGCAAATTGAGCAAATTGAGAAAATTCGAGGCCCAATGTTGTCATCTCCACATTTGAAGCAAATTGAGAAAATTCATCAAGAAATTCATCAAGAAAATTCATCAAGAAATTCATCAAGAAAATTCATCAAGAAAATTCATCAAGAAAATTCATCAAGAAAATTCATCAAGAAAAAAACCCCCGGAAACAATAGAAAAAAAA	H—@	-1 N	ses or
241 ATGCTGGAGACTGGGAGAAATACAAAAGCAGGAAAAGCTCATAGAGACTCCTCCTGAGAAATCCAAGAAGCAGAAAAGCTCATAGATCCAAGACTCATAGATCCAAGATCCAAGAAAGCAGAAAAGCTCATAGATCCAAGCTTACAAAAGCTAGAAAAGCTCATAGATCCAAGCTTACAAAAGCTCATAGATCCAAGCTTACAAAAGCTCATAGATCCAAGCTTACAAAAGCTCATAGATCCAAGCTTACAAAGCTCATAGATCCAAGCTTACAAAAGCTCATAGATCCAAGCTTACAAATGCAACATTGAGAAAATCCAGGATCCTGGATCCTCCTGAAACATTGAGGAAATGCAAGAATCCAGGAACATTGAGGAAAAATCCACGAAACATCCAGATCATGAAGAAGGGAAAAGAGGTCATCTGAGGAAAAAACCCCCGGAAAGAAGTCATGAAAGAAGGAAAAGAGGTCATCTGAGGAAAAAACCCCCGGAAAGAAGTCATGAAAGAAGGAAAGAAGGTCATCTGAAGAAAAAACCCCCGGAAAGAAGTAACAAGAAGGAAAGAAGGTCATCTGAAGAAAAAACCCCCGGAAAGAAGTAAAAAAAA			opaB),
101 GlyMetProMetAsnIleArgGlyProMetTrpServalLeuLeuAsnIleGluGluMet			
101 GlyMetProMetAgnIleArgGlyProMetTrpServalLeuLeuAgnIleGluGluMet			
101 GlyMetProMetAsnIleArgGlyProMetTrpServalLeuLeuAsnIleGluGluMet		•	
1 MELIEUS YABBIT DOLLUY BIYTLY BSETE EAT GLY YELEUL LEAB DAT GALLYTLY BILLY BIYTLY BETTE AT GLY BETTE LEAB DAT GALLYTLY BILLY BIYTLY BITT AT GALLYTLY BITT AT GALLYTLY BITT AT GALLYTLY BATT COAGGAANATACAAAGCAGCAGANAGCTCATAGATCCGAGCTACAAG 101 GLYMET PTOMETABNIL BATT GALLYTLA BATT GALLAGAT GALLYTLA BATT GALLAGAT GALLYTLA BATT GALLYTLA BATT GALLAGAT GALLYTLA BATT			
1 MELIEUG YABDI POLIUY BIYILY BSEZERI GUYBLEULI EABDI GALAIYILY BI III MINIMINI MELIEUG YABDI PALAIYILY BIYILY BIYLY BIYLY BIYLY BIYLY BIYILY BIYLY BIY		LJ LJ	V;
241 ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG		w H	se;
and the language of the language are a serious in the serious for the serious and the serious and the serious are the serious and the serious are the serious and the serious are the serious	MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100 	N	
Qy 61 ThràlaArgGluÀlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp 80		L	
Qy 41 SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu 60	18	L	

```
RESULT 3
AAA15001
ID AAA1
XX AAA1
XX AAA1
XX Huma
XX Huma
XX Huma
XX Cana
XX Huma
XX Cana
XX Homa
XX H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                        20-OCT-1998;
04-FEB-1999;
11-FEB-1999;
22-APR-1999;
                                            Tang YT, \Azimzai Y,
 WPI; 2000-339688/29
P-PSDB; AAY84901.
                                                                                                                                                                                                                                                                                                                                                                                                    Human; proliferation and apoptosis related protein; PROAP; psoriasis; cell proliferative disorder; immunological disorder; hepatitis; reproductive disorder; arteriosclerosis; cirrhosis; melanoma; lymphoma cancer; acquired immune deficiency syndrome; ALDS; allergy; anaemia; asthma; diabetes mellitus; osteoarthritis; endometriosis; uterine fibroid; menstrual cycle; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAA15001
                                                                                                                                                                                                                                     27-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                         sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                           INCYTE
                                           Yue H, H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard; cDNA; 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAAGTTCTCAGTTCCCTCCAGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                þ
                                                                                                                        98US-0172216P.
99US-0118559P.
99US-0172229P.
99US-0154336P.
                                                                                                                                                                                                       99WO-US024511
                                                                                                                                                                                                                                                                                                            Location/Qualifiers
42. .1691
/*tag= a
                                                                                                                                                                                                                                                                                             /product=
                                                             Hillman
                                              ₹,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                proliferation
                                            an JL,
Yang
                                                                                                                                                                                                                                                                                               "proliferation
                                              ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ₽₽
                                              Guegler KJ,
, Shih LL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                apoptosis related
                                                                                                                                                                                                                                                                                               and
                                                              Corley
                                                                                                                                                                                                                                                                                               apoptosis related
                                                              NC,
                                                              Lal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein.
                                                              ש
                                                                                                                                                                                                                                                                                             protein'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
Query Match:
DB:
   유
                                                                                   S
                                                                                                                        밁
                                                                                                                                              S
                                                                                                                                                                                   밁
                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                  ₽
                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                 ક
                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-10-071-838-2 (1-549) x AAA15001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  No . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1993
                                                              522
                                                                                                                           462
                                                                                                                                                        141
                                                                                                                                                                                       402
                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                  342
                                                                                                                                                                                                                                                                                                               282
                                181
                                                                                           161
                                                                                                                                                                                                                                                                               101
                                                                                                                                                                                                                                                                                                                                                                          222
                                                                                                                                                                                                                                                                                                                                                                                                                                       162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 102
                                                                                                                                                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9; Page 117-118; 128pp; English
                                                                                                                                                                                                                                                                                                                                                                                          ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                               ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2.96e-128
2978.00
99.8%
99.8%
99.8%
99.8%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                478 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (1-1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Сарв:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>ن</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               H,
```

New human proliferation and apoptosis related protein polypeptides used for diagnosis, treatment and prevention of cell proliferative, immunological and reproductive disorders.

expression or activity of include arteriosclerosis, cirrhosis, hepatitis, psoriasis, melanoma, lymphoma and cancers of the breast, brain and prostate, acquired immune deficiency syndrome (AIDS), allergies, anaemia, asthma, diabetes mellitus, osteoarthritis, endometriosis, uterine fibroids and disruptions of the menstrual cycle. Antibodies against PROAP can be use in diagnosis of disorders characterized by PROAP e.g. in ELISA (enzyme linked immunosorbent assays) and the polymucleotides may be used to detect and quantify gene expression in biopsied tissues. These techniques can also be used to monitor regulation of PROAP levels during The present sequence encodes a human proliferation and apoptosis related protein (PROAP). The polypeptides and polynucleotides can be used for the diagnosis, treatment and prevention of cell proliferative, immunological and reproductive disorders. Disorders associated with decreased

0 Ç 0 Other;

Length:
Matches:
Conservative:
Mismatches:
Indels: 1993 548 0 1 0

MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG 40 101 20

AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu 221 60

MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100 281

80

GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG 401 120 341

LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG 461 140

HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG 521 160

AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 200 581 180

```
1662
                                                                                                                                                                                                                                                                      1422
                                                                                                                                                                                                                                                                                                                                       1362
                                                                                                                                                                                                   1482
                                                                                                                                                                                                                                                                                                                                                                                                         1302
                                                                                                                                 1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1002
                                                                                                                                                                  501
                                                                                                                                                                                                                                                                                                     461
                                                                                                                                                                                                                                                                                                                                                                      441
                                                                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        201
             GluSerSerGlnPheProProGlyPhe
                                                                                  AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
                                                                                                                                                  ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                   CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                       ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                                                                                                                                                                       AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                     GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                            GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                                                                                                                                                                      GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                         ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                 CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATGI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
1688
                                 549
                                                                                                                                                                                                                                                                                                                                                                    460
                                                                                                                                                                                                                                                                                                                                                                                                                                       440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                               1601
                                                                                                                                                                                                                                 500
                                                                                                                                                                                                                                                                 1481
                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                   1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           380
                                                                                              540
                                                                                                                                                                                                1541
                                                                                                                                                                                                                                                                                                                                                                                                      1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1001
                                                              1661
                                                                                                                                                               520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .701
```

밁 8 밁 ક 밁 Ş 밁 ર્ 밁 8 밁

```
RESULT 4
ADT88069
ID ADT88069
XX ADT8
XX ADT8
XX ADT8
XX ADT8
XX Huma
XX PROJ
XW PROJ
XW Cell
XW PROJ
XW Antt:
XW Antt:
XW Antt:
XW Antt:
XX Huma
XX Y Antt:
XX Huma
XX Y Antt:
XX Antt:
XX ADT8
XX PT CDS
PT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 200
P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tang YT, 1
Azimzai Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-JAN-1999;
04-FEB-1999;
11-FEB-1999;
22-APR-1999;
19-OCT-1999;
11-APR-2001;
                                                                                                                                                                                                                                                                                                                                                             New human proliferation and apoptosis related proteins and polynucleotides for diagnosing, preventing or treating disorders associated with aberrant protein expression, e.g. cancer, AIDS, atherosclerosis or infertility.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-MAY-2004;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROAP; proliferation and apoptosis related protein; cell proliferative disorder; cancer; atherosclerosis; immunological disorder; AIDS; acquired immunodeficiency syndrome; allergy; reproductive disorder; infertility; gene therapy; cytostatic; antiarteriosclerotic; immunosuppressive; anti-HIV; antiallergic; antiinfertility; gynaecological; human; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-OCT-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US2004203106-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADT88069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (INCY-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2004-728011/71.
DB; ADT88050.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ĭ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         proliferation and apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INCYTE CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Yue H, n.
I, Baughn'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; 99US-0172216P.
; 99US-0118559P.
99US-0172229P.
; 99US-0154336P.
; 99WO-US024511.
; 2001US-00807452.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2004US-00839882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
42. 1691
/*tag= a
/product= "Proliferation a
(PROAP)-12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hillman JL,
n MR, Yang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cDNA; 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Guegler KJ,
Shih LL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Corley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (PROAP) -12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ŋ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Lal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ٦,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein
```

δ

В S 밁 ર્ 유

밁 S

Claim Ç, SEQ ID ö 31; 85pp; English

The present invention relates to the human proliferation and apoptosis related protein (PROAP) and its encoding nucleic acid. The invention is useful for diagnosing, preventing or treating disorders associated with altered expression or activity of human PROAP, such as cell proliferative (e.g. cancer or atherosclerosis), immunological (e.g. acquired immunodeficiency syndrome (AIDS) or allergies) or reproductive (e.g. infertility) disorders. The invention is also be used in screening for drugs that may be used for treating or preventing the disorders mentioned above and in gene therapy. The present sequence is the human PROAP-12 protein encoding cDNA.

Sequence 1993 BP; 478 ? 564 ü 570 Ģ 381 Ţ, 0 Ģ

DB:	Query Match:	Best Local Similarity:	Percent Similarity:	Score:	Pred. No.:	Alignment Scores:
13	99.8%	99.8%	99.8%	2978.00	2.96e-128	
Gарв:	Indels:	Mismatches:	Conservative:	Matches:	Length:	
0	0	ш	0	548	1993	

ঠ 밁 8 밁 ð 밁 र् 밁 ð 밁 S 밁 र् 밁 ঠ

밁

```
ð
                                ð
                                                   밁
                 밁
                                                             5
                                                                           밁
                                                                                          S
                                                                                                        8 8 8 8 8 8 8 8 8 8
                                                                                                                                                                                                                                                                         중 유
                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                    음 성 음
                                                                                                                                                                                                                                                                                                                                                                 중 음 중
                                                                                                                                                                                                                                                                                                                                                                                                           유 성 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-10-071-838-2
                      1002
                                   321
        341
                                                                                                                                                                                                                                                               522
                                                                                                                                                                                                                                                                                                         141
                                                   942
                                                                  301
                                                                                 882
                                                                                               281
                                                                                                             822
                                                                                                                           261
                                                                                                                                         762
                                                                                                                                                       241
                                                                                                                                                                        702
                                                                                                                                                                                    221
                                                                                                                                                                                                     642
                                                                                                                                                                                                                  201
                                                                                                                                                                                                                                  582
                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                              161
                                                                                                                                                                                                                                                                                             462
                                                                                                                                                                                                                                                                                                                          402
                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                      342
                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                   282
                                                                                                                                                                                                                                                                                                                                                                                                                 222
                                                                                                                                                                                                                                                                                                                                                                                                                                              162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            102
                                                                                                                                                                                                                                                                                                                                                                                                81
                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                            41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       _
TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu
                                                                                                                                         HisvalvalAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                     AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                        AspArgTyrGlyThrLysGl
                                                                                                                                                                                                                                                                                                     HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                                                                                                                                                                                                                                                                     LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                    ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCC
                                                            ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                                                                 CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                        LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                       GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                                                                                                              CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                  LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                                                                                                                                                                                                                             MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                                                                                                                                                         ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                      TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                              CTGCAGGGA
                                                                                                                                                                                                                                                                 GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                          AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (1-549)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ×
                                                                                                                                                                                                                                                                                                                                                                                    CTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                         CACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADT88069
                                                                                                                                                                                                                                                                       |nArgGluLeuLeuHisIl
|||||||||||||||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (1-1993)
                                                                                                                                                                                                                                                                       leLeuLeuAlaTyrGluGluTyr
                                                                                                                                                        260
                                                                                                                                                                                                                                                                                                                                       140
                       1061
                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                  100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           161
                                                    100:
                                                                  320
                                                                                 941
                                                                                                300
                                                                                                              881
                                                                                                                                           821
                                                                                                                                                                         761
                                                                                                                                                                                       240
                                                                                                                                                                                                     701
                                                                                                                                                                                                                                   641
                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                                581
                                                                                                                                                                                                                                                                                              521
                                                                                                                                                                                                                                                                                                            160
                                                                                                                                                                                                                                                                                                                          461
                                                                                                                                                                                                                                                                                                                                                      401
                                                                                                                                                                                                                                                                                                                                                                                    341
                                                                                                                                                                                                                                                                                                                                                                                                                 281
                                                                                                                                                                                                                                                                                                                                                                                                                               80
                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        101
        360
                                                                                                                                                                                                                   220
                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                       음 성 음
                                                                                                                                                                                                                                                                                                              5 B 5
                                                                                                                                                                                                                                                                                                                                                        8 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                    유 상 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
        (ASAH )
```

```
RRESULT 5
ADC37384
ADC384
ADC37384
ADC384
ADC38
                                                                       03-DEC-2001;
05-DEC-2001;
03-OCT-2002;
04-OCT-2002;
                                                                                                                                                                                                                                                                                                                                                                                           Nuclear factor kappa B; NF-kappaB; inflammation; autoimmune diseas cancer; infectious disease; bone disease; AIDS; neurodegenerative disease; ischaemic disease; Antiinflammatory; Immunomodulator; Cytostatic; Antimicrobial; Osteopathic; Anti-HTV; Neuroprotective; Nootropic; Cardiant; Gene therapy; human; gene; d
                                                                                                                                                                                                                                                                                                                                                Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADC37384
                                                                                                                                                                                                 03-DEC-2002;
                                                                                                                                                                                                                                                    12-JUN-2003
                                                                                                                                                                                                                                                                                                  WO2003048202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      381
                            ASAHI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AspleuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAAGTTCTCAGTTCCCTCCAGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                       ; 2001JP-00368692.
; 2001US-0335829P.
; 2002JP-00291302.
; 2002US-0415769P.
                                                                                                                                                                                                    2002WO-JP012644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first
                            KASEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            kappa B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA;
                              즛
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (NF-kappaB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            activating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 217.
                                                                                                                                                                                                                                                                                                                                                                                                   dв
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        400
```

1 ... 4.. .

```
Alignment
Pred. No.:
Score:
                                       밁
                                                               δ
                                                                                         밁
                                                                                                          ð
                                                                                                                                        밁
                                                                                                                                                               र्
                                                                                                                                                                                           밁
                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
Query Match:
DB:
               δ
                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-071-838-2 (1-549) x ADC37384 (1-1964)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention relates to novel proteins and their coding sequences (ADC37168-ADC37455), which activate nuclear factor kappa B (NF. kappaB). The proteins and their coding sequences are useful for treating a disease associated with NF-kappaB activation, such as inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases, or ischaemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New purified protein that activates nuclear factor kappa B (NF-kappaB), useful for treating inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases or ischemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1964 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 4; SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matsuda
                                                                                                                                                                                                                                                                                              241
                 201
                                                                                                                  161
                                                                                                                                           421
                                                                                                                                                                  141
                                                                                                                                                                                              361
                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2003-505282/47.
)B; ADC37385.
                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                       81
                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                          41
                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P
LeuProGluG1uAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerG1uArgHisSer
                                       AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                                                         HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                                                                                                                           LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu 140
                                                                                                                                                                                                                                                          GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                                                                                                             MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                                                                                             ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                                                                                                                  AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                 SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet 20
                                                                                                                                                                                            AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                              ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG 300
                                                                                                                                                                                                                                                                                                                                                ID NO 217; 938pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                473 A; 552 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           4e-128
2975.00
99.8%
99.8%
99.7%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 561 G; 378 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1964
548
0
1
                                                                                                                 180
                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                       100
                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                  160
                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            40
                                                                                         540
                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                         80
                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                       600
                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     60
```

RESULT 6
ABX71403
ID ABX7

ABX71403 standard; cDNA; 2072

```
δ
              ঠ
                                                                                         밁
                                                                                                               5
                                                                                                                                      밁
                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                            В
                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                             US-10-071-838-2 (1-549) x ABX71403
                                                                                                                                                                                                                                                                                                                                                                                              vaccines. The polynucleotides of the invention and antibodies encoded by them may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate polypeptide expression. The products of the invention may also be used to identify modulators of expression and activity and to down regulate expression and activity. The antibodies of the invention may also be used as diagnostic agents for detecting the presence of polypeptides in samples. This sequence encodes a polypeptide described in the disclosure of the invention
                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleic acids having the sequences of clones isolated from libraries different human tissues, useful in recombinant DNA methodologies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-AUG-1999;
28-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human cell cycle-associated cDNA from clone DKFZphtes3_35p22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200112659-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABX71403;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GEHU-) GERMAN HUMAN GENOME PROJECT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      invention describes novel polynucleotides and polypeptides isolated human cDNA libraries which can be used for gene therapy or in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2001-327840/34.
DB; ABU53234.
                                         279
                                                                                         219
                                                                                                                                          159
               81
                                                               61
                                                                                                                  41
                                                                                                                                                                  21
                                                                                                                                                                                            99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene;
MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                       ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                       SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                                                                                          2072
                                                                                                                                                        LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                              ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                            MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 867; 1095pp;
                                                                                          AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-IB001496
                                                                                                                                                                                                                                                                                                                                                                          BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0149499P.
99US-0156503P.
                                                                                                                                                                                                                                                                     1.5e-127
2963.00
99.6%
99.3%
99.3%
5
                                                                                                                                                                                                                                                                                                                                                                         510 A; 579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         therapy; vaccine; disease treatment; detection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           English
                                                                                                                                                                                                                                                                                                                                                                         Ç
                                                                                                                                                                                                                                               (1-2072)
                                                                                                                                                                                                                                                                                                                                                                          586
                                                                                                                                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                         <u>ი</u>
                                                                                                                                                                                                                                                                                                                                                                          397
                                                                                                                                                                                                                                                                                                                                                                          Η,
                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                          U; 0 Other;
                                                                                                                                                                                                                                                                       2072
545
2
2
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                욙
                                       338
                                                               80
                                                                                                                  60
                                                                                         278
                                                                                                                                          218
                                                                                                                                                                   40
                                                                                                                                                                                            158
   음 성
                                          밁
                                                                     Ş
                                                                                                     뭐
                                                                                                                    Ś
                                                                                                                                               밁
                                                                                                                                                                        S
                                                                                                                                                                                               문
                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                            중 유
                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                            중 유
                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     성 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                          1179
                                                                                                                                                        1239
                                                                                                                                                                                                                                                           1119
                                                                                                                                                                                                                                                                                                             1059
                          441
                                                                                                                              401
                                                                                                                                                                                381
                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                    321
                                                                             421
                                                                                                                                                                                                                                                                                                                                                             999
                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                              939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             459
                                                                                                                                                                                                                                                                                                                                                                                                                                       281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                 GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                       AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                           LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                                                                                         TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                              LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hi8IleGlnArgIleAspArgAspValSerGlyThrLeuArgLy8Hi8IlePhePheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
   GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                     GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                  ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
                                                                                                                                                                                                                                                                                                                                                                            ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                              CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGCTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ly8LeuLy8AsnProGlyArgTyrGlnIleMetLy8GluLy8GlyLy8ArgSerSerGlu
                                                                                                      ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                      IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAAGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
```

rrecededece

1298

420

1358

1418 440

1478

460

400

1238 380 340

1118

1178

360

320

998 300 938 878 260 818 240 220

758

200

638 180 578 160 518

```
ARSULT 7
ADQ84596
ID ADQ8
XX ADQ8
XX ADQ8
XX ADQ8
XX Huma
XX Huma
XX Huma
XX Homc
XX Homc
XX Homc
XX Hom
XX
The present invention describes an isolated tumour-associated antigenic target (TAT) nucleic acid comprising: (a) any of 4622 nucleotide sequences (see SEQ ID NO:1 to 4622); (b) the full-length coding region of (a); (c) the complement of (a) or (b); (d) a sequence that has 80% sequence identity to (a)-(c); or (e) a sequence that hybridises to (a)-(c). Also described: (1) an expression vector comprising the above nucleic acid; (2) a host cell comprising the above expression vector; (3) a process for producing a polypeptide; (4) an isolated polypeptide comprising: (a) an amino acid sequence encoded by any of the above nucleotide sequences; (b) an amino acid sequence encoded by the full-length coding region of the above nucleotide sequences; or (c) a sequence having at least 80% identical to (a) or (b); (5) a chimeric polypeptide comprising the above polypeptide fused to a heterologous polypeptide; (6) an isolated antibody that binds to the above polypeptide; (7) a process for producing the antibody; (8) an isolated oligopeptide that binds to the above polypeptide; (7) a process for producing the antibody; (8) an isolated antigenic target (TAT)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New nucleic acid molecule and encoded polypeptide, for diagnosing, preventing or treating cell proliferative disorders such as cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2004-534300/51
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Wu TD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (WUTD/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15-OCT-2003; 2003WO-US029126.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            22-JUL-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO2004060270-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human tumour-associated antigenic target (TAT) cDNA sequence #1410.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADQ84596 standard; cDNA; 2064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-OCT-2002; 2002US-0418988P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (/UOHZ)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tumour-associated antigenic target; TAT; cytostatic; gene therapy; cell proliferative disorder; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WU T D.
ZHOU Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zhou Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 1410;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAAGITCICAGITCCCTCCAGGCTTC 1745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5504pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        500
```

CC composition of matter comprising the above (chimeric) polypeptide; (10) a CC composition of matter comprising the above (chimeric) polypeptide, CC antibody, oligopeptide or TAT binding organic molecule, in combination CC with a carrier; (11) an article of manufacture comprising a container and CC the composition of matter contained within the container; (12) methods of CC inhibiting the growth of a cell that expresses the above protein, where CC present of the cell is at least in part dependent upon a growth CC therapeutically treating a mammal having a cancerous tumour comprising CC cells that express the above protein; (13) a method of cell that express the above protein (CC described above; (15) methods of diagnosing the presence of a protein in a sample suspected of containing the protein (CC described above; (15) methods of diagnosing the presence of a tumour in a CC mammal; (16) a method for treating or preventing a cell proliferative (CC disorder associated with increased expression or activity of the above (CC disorder associated with increased expression or activity of the above (CC preventing and (17)) a method of binding an antibody, oligopeptide or (CC preventing or treating cancer. The composition is also used for preparing a medicament for the therapeutic treatment or diagnostic detection of a (CC a medicament for the therapeutic treatment or diagnostic detection of a (CC cell proliferative disorder or cancer. The composition is also used for preparing (CC cell proliferative disorder or cancer invention.) human TAT cDNA sequence from the present invention.

Sequence 2064 BP; 498 A; 579 ü 588 G; 399 Ŧ; 0 ų; 0 Other;

Best Local S Query Match:

Similarity:

5.91e-127 2950.00 99.3% 99.3% 99.3% 98.9%

Length: Matches: Conservative: Mismatches: Indels:

2064 547

Percent Similarity:

밁 ঠ 유 문 δ 밁 S 밁 ð

S 밁 ঠ Ś 밁 S á 밁 문 δ 닭 S 밁 밁 Ś 밁 á S 밁 US-10-071-838-2 180 579 160 519 140 459 399 100 339 279 219 159 120 80 60 41 21 99 Н yrAsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuT luHisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheA etLysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerG ysGlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluM euThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValA SerTyrAsnAsnAsnValAspHisLeuGlyIleValHis--GluThrGluLeuProProL LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet rgAspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluT AGCACATCCAGCGCATCGACCGGGACGTAAGCGGCACATTAAGGAAGCATATATTCTTCA TGAAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTG ATATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACA spMetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrL AGCTACAACAACAACGTCGATCATTTGGGGATTGTACAAGTGAGACGGAGCTGCCTCCTC AAATACGAAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA ATGGACGTGGTAGAGGTCGCGGCAGTTGGTGGGCACAGAGCGAGAGGACATCATTATG AGGGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAA (1-549)× ADQ84596 (1-2064)180 578 160 140 120 100 338 278 40 638 518 458 398 80 60 218 158 20

```
1479
                                                                                                                                                                                                                                                                                                                                            1419
                                                                  1659
                                                                                                                                    1599
                                                                                                                                                                                                      1539
                                                                                                                                                                                                                                                                                                                                                                                                                1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1059
                                                                                                  520
                              540
                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                            460
                                                                                                                                                                                                                                                                                                                                                                            440
                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          340
                                                                                                                                                                    500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                639
                     euGluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                      euLysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCTTCCTGAGGAGGATGCATTCTGGGCACTGCTGCCAGTGAGAGGCACT
                                                                                                                                                                                                                                                                                                   hrAspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpV
                                                                                                                                                                                                                                                                                                                                                                                                                                 laValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     roIleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ysThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             roAlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       roTrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  leThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    lyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ysGlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           luHisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             erLeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 yrLeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisS
TGGAAAGTTCTCAGTTCCCTCCAGGCTTC
                                                                                       rgAlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisL
                                                                                                                                    AGCGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCA
                                                                                                                                                                                                                                                                                                                                                                 lnGlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAssnSerMetProArgLeuProT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCGCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCT
                                                                                                                                                       luArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheA
                              549
                                                                  1718
                                                                                                    540
                                                                                                                                    1658
                                                                                                                                                                                                                                        500
                                                                                                                                                                                                                                                                          1538
                                                                                                                                                                                                                                                                                                                                              1478
                                                                                                                                                                                                                                                                                                                                                                              460
                                                                                                                                                                                                                                                                                                                                                                                                                                                  440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                        1598
                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                1418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    938
```

δ

밁 र् 밁 δ 밁 ঠ 밁 S 밁 S F र् 밁 S

```
RESULT 8
ADQ86595
ADQ86595
AC ADQ8
AX 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GETH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-OCT-2002; 2002US-0418988P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human tumour-associated antigenic target (TAT) cDNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADQ86595 standard; cDNA; 2064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-OCT-2003; 2003WO-US029126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2004060270-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADQ86595;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (/UOHZ)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ) GENENTECH INC.
) WU T D.
) ZHOU Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               tumour-associated antigenic target; TAT; cytostatic; gene therapy;
; cell proliferative disorder; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Zhou
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entry)
```

New nucleic acid molecule and encoded polypeptide, for diagnosing, preventing or treating cell proliferative disorders such as cancer cancer.

Claim 1; SEQ ID NO 3468; 5504pp; English.

The present invention describes an isolated tumour-associated antigenic carriers (PAT) nucleic acid comprising; (a) any of 4622 nucleotide coequences (see SEQ ID NO:1 to 4622); (b) the full-length coding region of CC (a); (c) the complement of (a) or (b); (d) a sequence that has 80% sequence identity to (a)-(c); or (e) a sequence that hybridises to (a)-(c) (a) also described: (1) an expression vector comprising the above uncleic acid; (2) a host cell comprising the above expression vector comprising; (a) an amino acid sequence encoded by any of the above comprising: (a) an amino acid sequence encoded by the full-comprising the above polypeptide comprising the above polypeptide; (f) an isolated antibody that binds to the above polypeptide; (f) an isolated antibody that binds to the above polypeptide; (f) an isolated antibody that binds to the above polypeptide; (f) an artibody that binds to the above polypeptide; (f) an artibody, oligopeptide; (f) an article of manufacture comprising a comtainer and the growth of a cell that expresses the above protein, where the growth of the cell is at least in part dependent upon a growth cell state expresses the above protein, where the growth of the cell is at least in part dependent upon a growth cell state expresses the above protein, where the growth of the above protein; (13) a method of the above protein and methods of described above; (15) methods of diagnosing the protein and cell that expresses the protein described above. The tate of the above and the protein and methods are useful for diagnosing. Cell that expresses the protein described above. The composition and methods are useful for diagnosing. Cell that expresses the protein described above. The c

밁 S B ঠ 밁 δ र् 밁 δ

밁

Ś

밁 ঠ 문 δ 밁 ঠ 밁

밁

밁 S

; (5

```
중 음
                                           रु है रु
                                                                                                     음 성 음
                                                                                                                                                           δ
                                                                                                                                                                                                                                      S
           S
                       밁
                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                   ई
                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                       ક
                                                                                                                                                                                                                                                                                                                                                                          멍
                                                                                                                                                                                                                                                                                                                                                                                             ち 음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                      닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Alignment Scores:
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SSXS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-10-071-838-2 (1-549) x ADQ86595 (1-2064)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cell proliferative disorder or cancer. The present sequence represents human TAT cDNA sequence from the present invention.
            280
                                                                                     240
                                                                                                                                              699
                                                                                                                                                                                    639
                                                                                                                                                                                                                         579
                                                                                                         759
                                                                                                                                                                200
                                                                                                                                                                                                      180
                                                                                                                                                                                                                                            160
                                                                                                                                                                                                                                                                                140
                                                                                                                                                                                                                                                                                                     459
                                                                                                                                                                                                                                                                                                                        120
                                                                                                                                                                                                                                                                                                                                           399
                                                                                                                                                                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                                                                 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                         219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                159
                                                                                                                                                                                                                                                                                                                                                                                                                      279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            41
                                                                                                                                                                                                                                                                                                                                                                                                  80
                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99
lyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProI
                             ysGlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuG
                                                                  YrLeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisS
                                                                                                                                                                                                                                                            luhisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheA
                                                                                                                                                                                                                                                                                                   SPMCLLCUGIYASPTTPGluLySTyrLySScrScrArgLySLcuIlcAspArgAlaTyrL 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   yrAsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuT
                                                                                                                                                                                                                        GGGATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGT
                                                                                                                                                                                                                                   rgAspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluT
                                                                                                                                                                                                                                                                                                                                                                                                                             euThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValA 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SerTyrAsnAsnAsnValAspHisLeuGlyIleValHis--GluThrGluLeuProProL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                              ATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACT
                                                                                                                                                                                                                                                                                                                                          AGGGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAA
                                                                                                                                                                                                                                                                                                                                                      AGCTACAACAACAACGTCGATCATTTGGGGATTGTACAAGTGAGACGGAGCTGCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        498 A; 579 C; 588 G; 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5.91e-127
2950.00
99.3%
99.3%
98.9%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2064
547
0
2
2
                                                                                                                                                                                                                                                                                160
                                                                                                        818
                                                                                                                                                               220
                                                                                                                                                                                                                                                                                                                                                           120
                              938
                                                                                                                                             758
                                                                                                                                                                                   698
                                                                                                                                                                                                                        638
                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                              578
                                                                                                                                                                                                                                                                                                    518
                                                                                                                                                                                                                                                                                                                       140
                                                                                                                                                                                                                                                                                                                                          458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  40
  ARSSULT 9
ARSS1707
ID ARSS5707
XX ARSS57
XX ARSS5
XX CDRA
DT 28-N
DT CDRA
XX CDRA
XX Huma
XW brea
XX Homo
XX Homo
XX Homo
XX FT CDS
                                                                                                                                                                                           밁
                                                                                                                                                                                                          S
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                       멍
                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                  Human;
breast
                                                                                                                  28-NOV-2002
                                                                                                                                    ABS54707;
                                                                                                                                                                                                                                                                                                                                                   1479
                                                                                                                                                                                                                                 1659
                                                                                                                                                                                                                                                                                                             1539
                                                                                                                                                                                                                                                                                                                                                                                        1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1059
                                                                                                                                                                                                                                                                       1599
                                                                                                                                                                                                                                                                                                                                                                                                                             1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1239
                                                sapiens
                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                          500
                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                      460
                                                                                                                                                                                                                                                                                                                                                                                                           440
                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    939
                                                                 PRC17; prostate cancer; ovarian cancer; lung cancer; cancer; cytostatic; chromosome 17q11-12; gene; 88; 8;
                                                                                                                                                                                           euGluSerSerGlnPheProProGlyPhe 549
                                                                                                                                                                                                                                 rgAlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisL 540
                                                                                                                                                                                                                                                                                                             hrAspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpV 480
                                                                                                                                                                                                                                                                                                                                                                                       lnGlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAenSerMetProArgLeuProT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            roAlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyL 380
                                                                                                                                                                                                                                                                                luArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheA
                                                                                                                                                                                                                                                                                                                                                                                                                             CTGTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTC 1418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCATTTGGTCAGCTTCCCCGCCACGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ysThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgP 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   euLysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProP 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         roTrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrVall 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        leThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyP 320
                                                                                                                                                                                                                                                                                                                                                                                                                                        laValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rolleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyA 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGA
                                                                                              human PRC17 protein splice variant
 Location/Qualifiers
1. .1832
/*tag= a
/product= "Human PRC
                                                                                                                                                       CDNA;
  "Human PRC17
  protein splice variant
```

splice variant

1718

1598

1478

460

440 1358 1298

1238

1178

1118

1058

```
Alignment Scores:
pred. No.:
Score:
Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                             밁
                                                                                    δ
                                                                                                                                ş
                                                                                                                                                                                                                                    Ş
              밁
                                ঠ
                                                                                                             밁
                                                                                                                                                              밁
                                                                                                                                                                                  중 유
                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-071-838-2 (1-549) x
                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention relates to a new PRC17 polypeptide. The invention is useful for detecting cancer cells (such as prostate tissue, breast tissue, lung tissue, ovarian tissue) in a biological sample. The invention is further useful for monitoring the efficacy of a therapeutic treatment of a cancer (prostate cancer, ovarian cancer, lung cancer, breast cancer). The molecules of the invention are useful diagnostically or prognostically to detect diseases or conditions associated with altered PRC17 activity or expression relative to normal, for example cancer. The present nucleic acid sequence encodes the human PRC17 protein splice variant 1 of the invention. The human PRC17 gene is located on chromosome 17q11-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel isolated PRC17 polypeptide useful diagnostically or prognostically to detect diseases or conditions associated with altered PRC17 activity or expression relative to normal, for example cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 2146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 24; Page 63-64; 78pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-FEB-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (TULA-) TULARIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-FEB-2001; 2001US-0267615P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200262958-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002-706902/76.
DB; ABG70737.
              301
                                                              241
                                                                                                              181
                                                                                                                                                                 121
                                       54
                                                                                    53
                                                                                                                                      53
                                                                                                                                                                                       41
                                                                                                                                                                                                                61
                                                                                                                                                                                                                                       21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Powers
              GCCCCGTGCAGTTCCTCAGCTCTGCCTGGGTTGCCTTACAGTGAGACGGAGCTGCCTCCT
                                                                                                                                                                                                                              LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                                                                                                               MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                                                                                                                              AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                   ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGACAGCATCATTATG
                                                                                                                GCCCCACAGGAAGGCCCTTGTCCTTCCCTTGTGCCTTCTCTGGGCTGAGCCCTGAG
                                                                                                                                                                 AGCTACAACAACACGTCGATCATTTGGGGATTGTACAGTCCTGCCGCTCCTGGGAGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2002WO-US003457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /transl_except= (pos:421. .422, aa:Asp)
/note= "This codon has an apparent 1 nucleotide deletion
which alters the reading frame"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Xiang
                                                                                                                                                                                                                                                                                                                                                                                                                                          494 A;
                                                                                                                                                                                                                                                                                                                                                     5.49e-125
2907.50
89.7%
89.7%
97.5%
                                                                                                                                                                                                                                                                                                                   ABS54707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ָש,
                                                                                                                                                                                                                                                                                                                                                                                                                                            619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peng
                                                                                                                                                                                                                                                                                                                                                                                                                                           ü
                                                                                                                                                                                                                                                                                                                  (1-2146)
                                                                                                                                                                                                                                                                                                                                                                                                                                            616
                                                                                                                                                                                                                                                                                                                                                    Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ĸ
                                                                                                                                                                                                                                                                                                                                          Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>ი</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                            417
                                                                                                                                                                                                                                                                                                                                                                                                                                            Ή,
                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                            U; 0 Other;
                                                                                                                                                                                                                                                                                                                                          2146
547
0
2
62
1
                             -GluThrGluLeuProPro
                                     59
                                                                                                                                                                                                                                       40
                                                                                                                                       53
                                                                                                                                                                                         53
                                                                                                                                                                                                                                                                 60
8 B
                                          ð
                                                                          밁
                                                                                           ð
                                                                                                                밁
                                                                                                                                            Ś
                                                                                                                                                                        밁
                                                                                                                                                                                           S
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                    뮍
                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                           1260
                                                                                                                                                                             1200
                                                                                                                                                                                                                             1140
                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                               1020
                                                                                                                                                                                                                                                    320
                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                      280
                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                     260
                                                                                                                                                                                                                                                                                                                                                                                                                                900
                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                             GlyLeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AlaValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAla 439
                                                                                                                                                                                                                                                                                                                                                                                                 CysGlyGlmCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                               GluHisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MetLysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSer
                                        ProIleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGly
                                                                                         LysThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArg 399
                                                                                                                                          ProAlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGly 379
                                                                                                                                                                                          LeuLysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProPro 359
                                                                                                                                                                                                                                                                               ATAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGC
                                                                                                                                                                                                                                                                                             IleThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerLeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TyrLeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TyrAsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgAspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGAAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAAGGGCAAGAGGTCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LysGlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspMetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyr 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGACTGCGCGGGAGCCAAATTCGGCGGGAGATCAGCCGAAAGAGCAAGTGGGT-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LeuThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpVal 79
                                                                                                                             CCAGCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCCTTCACGTGGCGG
                                                                                                                                                                                                                              CCGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTG
                                                                                                                                                                                                                                             ProTrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                TCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGGATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTAC
                                                                                                                                                                                                                              1199
                                                                                                                                                                                                                                                                                                                                                                                                        279
                                                                                                                                                                                                                                                    339
                                                                                                                                                                                                                                                                               1139
                                                                                                                                                                                                                                                                                                       319
                                                                                                                                                                                                                                                                                                                                1079
                                                                            1379
                                                                                                                           1319
                                                                                                                                                                             1259
                                                                                                                                                                                                                                                                                                                                                       299
                                                                                                                                                                                                                                                                                                                                                                                1019
                                                                                                                                                                                                                                                                                                                                                                                                                                959
                                                                                                                                                                                                                                                                                                                                                                                                                                                        259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        419
```

```
RESULT 10
ADC37380
ID 37280
ID 37280
ID 37280
AC ADC3
AC ADC3
XX Nucl
XX Nucl
KW Nucl
KW New
Canc
KW New
PN W020
XX Homo
XX Ho
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                       03-DEC-2001;
05-DEC-2001;
03-OCT-2002;
04-OCT-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Nuclear factor kappa B; NF-kappaB; inflammation; autoimmune dise
cancer; infectious disease; bone disease; AIDS;
neurodegenerative disease; ischaemic disorder; Antiinflammatory;
Immunomodulator; Cytostatic; Antimicrobial; Osteopathic; Anti-HI
Neuroprotective; Nootropic; Cardiant; Gene therapy; human; gene;
The present invention relates to novel proteins and their coding sequences (ADC37168-ADC37455), which activate nuclear factor kappa B kappaB). The proteins and their coding sequences are useful for treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo
                                                                                                      New purified protein that activates nuclear factor kappa B (NF-kappaB), useful for treating inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases or ischemic disorders.
                                                                       Claim
                                                                                                                                                                                                                                         Matsuda
                                                                                                                                                                                                                                                                                                                                                                                           03-DEC-2002; 2002WO-JP012644.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO2003048202-A2
                                                                                                                                                                                                                                                                        (ASAH ) ASAHI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nuclear factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ADC37380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1560
                                                                                                                                                                                      2003-505282/47.
DB; ADC37381.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        440
                                                                     4
                                                                                                                                                                                                                                       Α,
                                                                     SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuGluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ArgAlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GluArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ThräspLeuäspValGluGlyProTrpPheärgHisTyräspPheärgGlnSerCysTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAGGGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlnGlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGAGCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGCGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTCCGTGCCATATCCCAGGAGGACCAGCTGGCCCCCCTGCTGGCAGGCTGAACACCCTGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ValArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAla
                                                                                                                                                                                                                                                                                                       ; 2001JP-00368692.
; 2001US-0335829P.
; 2002JP-00291302.
; 2002US-0415769P.
                                                                                                                                                                                                                                       Muramateu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                                        KASEI KK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             kappa B
                                                                     ĕ
                                                                   213;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (NF-kappaB)
                                                                  938pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₽₽
                                                                  English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            activating gene, SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             213.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            disease;
 ppa B (NF-
treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1559
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment
Pred. No.:
Score:
                                                                Ś
                               밁
                                                                                                   밁
                                                                                                                         S
                                                                                                                                                              닭
                                                                                                                                                                                            S
                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                               닭
                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-071-838-2 (1-549) x ADC37380 (1-2304)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SSS & S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      No.:
                                  1142
                                                                                                   1082
                                                                                                                                                                   1022
                                                                  261
                                                                                                                                  241
                                                                                                                                                                                                                                    962
                                                                                                                                                                                                                                                                   201
                                                                                                                                                                                                                                                                                                      902
                                                                                                                                                                                                                                                                                                                                                                      842
                                                                                                                                                                                                    221
                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                       161
                                                                                                                                                                                                                                                                                                                                                                                                                                        782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6.52e-125
2906.50
98.4%
98.4%
97.4%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ç,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>و</u>
```

a disease associated with NF-kappaB activation, such as inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AII neurodegenerative diseases, or ischaemic disorders.

489 Ŧ, 0 U; 0 Other;

Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps: 2304 540 0 2 8

MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet ATGGACGTGGTAGAGGTCGCGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG 20

SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA 481 40 8 421

ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG 601 80 541

MetLeuGlyAspTrpGluLySTyrLySSerSerArgLysLeuIleAspArgAlaTyrLyS GGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG

GlyMetProMetAgnIleArgGlyProMetTrpSerValLeuLeuAgnIleGluGluMet LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG

HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG

AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr GATCGATACGGAACCAAGCAGCGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG

> 180 841

160 781 140 721 120 661 100

901

AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT

LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC 1081 240 1021

281 LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys 1201 1141 260 280

δ

ঠ 밁

```
RESULT 11
ADC37378
ID ADC3
XX
AC ADC3
XX
DT 18-I
DX
Nucl
XX
KW Nucl
XX
KW Nucl
XX
KW neuz
KW neuz
XX
KW neuz
XX
XX
KW neuz
XX
XX
KW Neus
XX
KW Neus
XX
KW Neuz
XX
KW Neus
XX
KW Neus
XX
KW Neuz
                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                        ક
                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                      Nuclear factor kappa B; NF-kappaB; inflammation; autoimmune dise cancer; infectious disease; bone disease; AIDS; neurodegenerative disease; ischaemic disorder; Antiinflammatory; Immunomodulator; Cytostatio; Antimicrobial; Osteopathic; Anti-HI Neuroprotective; Nootropic; Cardiant; Gene therapy; human; gene;
              Homo sapiens
                                                                                                                   Nuclear
                                                                                                                                                                                                ADC37378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1202
                                                                                                                                                                                                                                                                                                      1900
                                                                                                                                                                                                                                                                                                                                                                                                           1780
                                                                                                                                                                                                                                                                                                                                                        1840
                                                                                                                                                                                                                                                                                                                              521
                                                                                                                                                                                                                                                                                                                                                                                 501
                                                                                                                                                                                                                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               301
                                                                                                                                                                                                                                                                            541
                                                                                                                   factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
                                                                                                                                                                                                                                                                                                                                                                                                                          ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro|
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ThrArgIleAlaPheLy8ValGlnGlnLy8ArgLeuThrLy8ThrSerArgCy8GlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                 standard;
                                                                                                                                                                                                                                                   GAAAGTTCTCAGTTCCCTCCAGGC
                                                                                                                                                                                                                                                                            GluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                                                                                                                                                                         ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                      GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                            CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAĞCAĞĞĞĞĞACCTGCCACCCCCA
                                                                                                                                             (first
                                                                                                                  kappa B
                                                                                                                                                                                                 DNA;
                                                                                                                                             entry)
                                                                                                                 (NF-kappaB)
                                                                                                                                                                                                 2304
                                                                                                                                                                                                 ΒP
                                                                                                                                                                                                                                                     THO
                                                                                                                  activating gene,
                                                                                                                                                                                                                                                     1986
                                                                                                                                                                                                                                                                             549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ----CCA
                                                                                                                     SEQ
                                                                                                                     ij
                                                     Anti-HIV;
                                                                                           disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1261
                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                           1899
                                                                                                                                                                                                                                                                                                                                                                                                             1839
                                                                                                                                                                                                                                                                                                                                                                                                                                      500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              340
                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                             밁
                                                                                                                                                     S
                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOXCCCCCCXXXXIII
  S
                     밁
                                            Ş
                                                                                                      Ś
                                                                                                                                 밁
                                                                                                                                                                                     밁
                                                                                                                                                                                                         S
                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                 US-10-071-838-2 (1-549)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention relates to novel proteins and their coding sequences (ADC37168-ADC37455), which activate nuclear factor kappa B (NF-kappaB). The proteins and their coding sequences are useful for treating a disease associated with NF-kappaB activation, such as inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases, or ischaemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New purified protein that activates nuclear factor kappa B (NF-kappaB), useful for treating inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases or ischemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-DEC-2001; 2001JP-00368692.
05-DEC-2001; 2001US-0335829P.
03-OCT-2002; 2002JP-00291302.
04-OCT-2002; 2002US-0415769P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2304 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 4; SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-DEC-2002; 2002WO-JP012644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matsuda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO2003048202-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (ASAH ) ASAHI KASEI KK.
    141
                             722
                                                                                662
                                                                                                        101
                                                                                                                                    602
                                                                                                                                                                                      542
                                                                                                                                                                                                                                         482
                                                                                                                                                                                                                                                                                            422
                                                                                                                                                                                                                                                                                                                                               362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2003-505282/47.
                                                      121
                                                                                                                                                                                                                                                                                                                  21
                                                                                                                                                           81
                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                 41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADC37379
                                            LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                               GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                               GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                 MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                      ThrAlaArgGluAlaLysGlnIleArgArgGluIl
                                                                                                                                                                                                                                         AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                         SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                            AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                          LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                                                                                                                                                                               MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
  HislleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                                                    ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Muramatsu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NO 211;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 570 A; 609 C;
                                                                                                                                                                                                                                                                                                                                                                                                                          1.52e-124
2898.50
98.2%
98.2%
97.2%
                                                                                                                                                                                                                                                                                                                                                                                                x ADC37378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 938pp;
                                                                                                                                                                                                                                                                                                                                                                                                 (1-2304)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 636 G; 489
                                                                                                                                                                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ţ,
                                                                                                                                                                                                     leSerArgLysSerLysTrpValAsp
```

0 U; 0 Other;

2304 539 0 3 1

160

781

140

721 120 661 100

601

90

60 481 40 421 20

```
1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1382
                                                                                                                                                                                                                                                                                                                                                                                           1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1082
                           501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 381
                                                                                                                                                                                       461
                                                                                                                                                                                                                                                                                                                                                                                                                                   401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  842
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             782
ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                          ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                                                          AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                      GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                                                                                                ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln 440
                                                                                                                                                                                                                                                                                                                                                                                         TT-TGGTCAGCTTCCCCGCCACGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCAACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                           GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ThrArgileAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rcagcagaagcgcctcacgaagacgtccaggtgtggcccg
                                                                                                                                                                                   480
                                                                                                                                                                                                                             1719
                                                                                                                                                                                                                                                                   460
                                                                                                                                                                                                                                                                                                           1659
                                                                                                                                                                                                                                                                                                                                                                                         1599
                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1381
                                                               1839
                                                                                                                                               1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
```

밁 ð 밁 5 밁 S S

밁

S

밁 ક 음 성

밁 S

밁

```
RESULT 12
ABZ11810
ADZ11810
ADZ11810
AC ABZ11
AX ADZ11
AX ADZ11
AX ADZ11
AX ADZ11
AX ADZ11
AX Human
AX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; genome mapping; gene therapy; food supplement; virus; fungus; cell-proliferative disorder; neurodegenerative disease; bacterial; Parkinson's disease; Alzheimer's disease; autoimmune disease; multiple sclerosis; diabetes; genetic disorder; wound; burn; infection; arthritis; cytostatic; immunomodulator; nootropic; neuroprotective; sntiparkinsonian; antidiabetic; immunosuppressive; dermatological; hammostatic; vulnerary; fungicide; antibacterial; virucide; protozoacide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human polynucleotide SEQ ID NO 692.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABZ11810;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABZ11810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1840 CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA 1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAAAGTTCTCAGTTCCCTCCAGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGGCCTCCACTTG 1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     549
```

WO200270539-A2 Homo sapiens

antiarthritic;

gene;

88.

05-MAR-2002; 2002WO-US005095

05-MAR-2001; 2001US-00799451

(HYSE-) HYSEQ INC

Tang YT, Zhou P, Goodrich RW, Asu Xue AJ, Yang Y, Ma Y, Yamazaki V, Wehrman T, Wang J, Wang D, Drmana Drmanac , Asundi V, aki V, Chen Drmanac RT; ₽, Zhang ang J, Wang 2 Zhao Z Ŧ

WPI; 2002-759812/82

New polynucleotides comprising sequences assembled from expressed sequence tags (ESTs), useful for treating cell-proliferative, neurodegenerative, autoimmune, genetic, myeloid or lymphoid, or p or coagulation disorders. or platelet

Claim 1; SEQ ID NO 692; 1012pp + Sequence Listing; English

The invention relates to an isolated polynucleotide (I) comprising a CC nucleotide sequence selected from any of 948 sequences (ABZ11119-CC ABZ12066) or their mature protein coding portion, active domain coding CC protein or complementary sequences. The polynucleotides are useful for CC identifying expressed genes or for physical mapping of human genome. The encoded polypeptides (ABP68912-ABP6984) are useful as molecular weight CC markers, as a food supplement, for generating antibodies, in medical CC imaging, screening and diagnostic assays and for treating cell-CC proliferative disorders (cancer), neurodegenerative diseases (Parkinson's CC proliferative disorders (cancer), neurodegenerative diseases (Parkinson's CC or Alzheimer's disease), autoimmune diseases (multiple sclerosis, CC platelet or coagulation disorders, wound, burns, incision, ulcers, liver CC or the printed specifications (bacterial, viral, fungal, parasitic), CC arthritis, etc. Note: The sequence data for this patent did not form part CC of the printed specification, but was obtained in electronic format CC directly from WIPO at ftp.wipo.int/pub/published_pct_sequences

2084 BP; 519 A; 571 <u>ე</u> 581 G; 413 T; 0 U; 0 Other; 문 δ 밁 S 밁 δ 밁 ð 밁 S B 8 밁 δ В ð 8 S

ð

```
Alignment Scores:
Pred. No.:
Score:
Percent Similarity:
Best Local Similarity:
Query Match:
                                                        5
                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best 1
Query
DB:
             δ
                                    문
                                                                                                       δ
                                                                                                                             문
                                                                                                                                                       ঠ
                                                                                                                                                                              음 성 음
                                                                                                                                                                                                                                                         & 음 &
                                                                                                                                                                                                                                                                                                                                 음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                    음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-071-838-2 (1-549) x ABZ11810
                                    949
                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                              181
              301
                                                             281
                                                                                      689
                                                                                                              261
                                                                                                                                       829
                                                                                                                                                                                        769
                                                                                                                                                                                                              221
                                                                                                                                                                                                                                         709
                                                                                                                                                                                                                                                                 201
                                                                                                                                                                                                                                                                                         649
                                                                                                                                                                                                                                                                                                                                           589
                                                                                                                                                                                                                                                                                                                                                                 161
                                                                                                                                                                                                                                                                                                                                                                                           529
                                                                                                                                                                                                                                                                                                                                                                                                                  141
                                                                                                                                                                                                                                                                                                                                                                                                                                            523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -
ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                    LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                      GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATGTGGTAGCCACGTCACAACCCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                                                    HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                       LeuGlnGlyFheHisSerFroAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                                                                                                         AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                        AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                          CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAATGCCCATGAACATCCGGGGCCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2.34e-122
2850.00
96.4%
96.2%
95.5%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (1-2084)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                     1008
                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100
                                                                                                                                                                                                                                                                                                                                                                                                                   160
                                                                                                                                       888
                                                                                                                                                                 260
                                                                                                                                                                                          828
                                                                                                                                                                                                                240
                                                                                                                                                                                                                                         768
                                                                                                                                                                                                                                                                  220
                                                                                                                                                                                                                                                                                           708
                                                                                                                                                                                                                                                                                                                  200
                                                                                                                                                                                                                                                                                                                                            648
                                                                                                                                                                                                                                                                                                                                                                                             588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               342
                                                                                                                                                                                                                                                                                                                                                                                                                                             528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 222
  RRESULT 13
ADM44328
IID ADM4
AZC ADM4
XX ADM4
XX ADM4
XX BS;
XX Nove
XX SS;
XX USen
XX USen
XX USen
XX Homc
XX
                                                                                                                                                                                                                                                                                                        유
                                                                                                                                                                                                                                                                                                                                               유 성 유
                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
  05-MAR-2001;
05-MAR-2002;
                                     21-NOV-2002; 2002US-00302172
                                                                                                                Homo
                                                                                                                                       genetic
                                                                                                                                                                             Novel
                                                                                                                                                                                                     03-JUN-2004
                                                                                                                                                                                                                                                      ADM44328
                                                              18-MAR-2004
                                                                                       US2004053250-A1
                                                                                                                                                                                                                             ADM44328;
                                                                                                                                                   gene; human;
                                                                                                                                                                                                                                                                                                         1729
                                                                                                                                                                                                                                                                                                                                                        1669
                                                                                                                                                                                                                                                                                                                                                                                                        1609
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1009 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                              sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 401
                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                521
                                                                                                                                                                                                                                                                                                                                                                                                                                501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      321
                                                                                                                                                                             human
                                                                                                                                       disorder
                                                                                                                                                                                                                                                                                                      GluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                                                                                                                                                        AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             standard;
                                                                                                                                                                                                                                                                                                                                                                                                                     ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGACCTGCAACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu
                                                                                                                                                                                                                                                                                                                                                                                                          CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                            arginine-rich protein cDNA
  2001US-00799451
2002WO-US005095
                                                                                                                                                                                                     (first
                                                                                                                                                   arginine-rich
                                                                                                                                                                                                                                                      CDNA;
                                                                                                                                                                                                     entry)
                                                                                                                                                                                                                                                        2084
                                                                                                                                                                                                                                                        ВP
                                                                                                                                                      protein;
                                                                                                                                                                                                                                                                                                                               549
                                                                                                                                                      cancer;
                                                                                                                                                       inflammation;
```

1668 520 1608

1728

440

1368

1308

1188

1248

340

1068

1128

360

480 1488 460 1428

1548

```
Alignment Scores:
Pred. No.:
Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                               8 8 8 8
                                                                                                                   밁
                                                                                                                                  8 8 8 8 8 8
음 성
                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-071-838-2 (1-549)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention relates to an isolated polynucleotide. The methods and compositions of the present invention are useful for the diagnosis and/or treatment of diseases or conditions associated with aberrant expression or activity of the arginine-rich protein-like polypeptides, such as cancer and inflammation. They can also be used in forensics, gene mapping, identification of mutations responsible for genetic disorders, and in assessing biodiversity. The present sequence represents a novel human arginine-rich protein cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 2084 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New isolated arginine-rich protein-like polynucleotides and polestil for diagnosing and/or treating conditions associated will activity of the arginine-rich polypeptides, such as cancer and inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (TANG/)
(XUEA/)
(DRMA/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; SEQ ID NO 692;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-AUG-2002;
 589
              161
                                                                                                                      463
                                      529
                                                                                                 121
                                                                                                                                        101
                                                                                                                                                            403
                                                                                                                                                                                                   343
                                                                                                                                                                                                                                                                                                                         163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2004-238579/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ĭ,
                                                                                                                                                                                                                                          283
                                                                                                                                                                                                                                                                                  223
                                                                                                                                                                             81
                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                            41
                                                                                                                                                                                                                                                                                                     21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TANG Y T
XUE A.
DRMANAC
                                                                                                                                                                                                                                                                                                                       MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                    LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
|||||
                                                                                                                             GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                                        AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                                                                     MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                AAATACGAAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                              LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                            ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                              ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Xue A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2002US-00225251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Drmanac
                                                                                                                                                                                                                                                                                                                                                                                            2.34e-122
2850.00
96.4%
96.2%
95.5%
                                                                                                                                                                                                                                                                                                                                                               x ADM44328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             51pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        召
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ç
                                                                                                                                                                                                                                                                                                                                                                 (1-2084)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   581
                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ຸດ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ħ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ;;
                                                                                                                                                                                                                                                                                                                                                                                  2084
528
1
2
18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polypeptides,
with aberrant
                                                                                                140
                                                                                                                                                           462
                                                                                                                                                                              100
                                                                                                                                                                                                   402
                                                                                                                                                                                                                    08
                                                                                                                                                                                                                                         342
                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                   40
                      S
                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                         ঠ
        밁
                                              문
                                                           5
                                                                                밁
                                                                                                    δ
                                                                                                                            밁
                                                                                                                                           δ
                                                                                                                                                                뭐
                                                                                                                                                                                    δ
                                                                                                                                                                                                          밁
                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                  吊
                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                   뮍
                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     & 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      공
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                      1549
                                                                                                                             1489
                                                                                                                                                                    1429
                                                                                                                                                                                                           1369
                                                                                                                                                                                                                                                    1309
                                                                                                                                                                                                                                                                                           1249
                                                                                                                                                                                                                                                                                                                                  1189
                                                                                                                                                                                                                                                                                                                                                                        1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1009
                                                                                                                                                                                                                                                                                                                                                                                                                1069
                                                                                                         481
                            521
                                                                  501
                                                                                                                                                461
                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                       401
                                                                                                                                                                                                                                                                                                              381
                                                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                                                                            341
                                                                                                                                                                                                                                                                                                                                                                                                                                   321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                    AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
                                               ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                            GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                    ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
                                                                                                                                                                                                                                                                                                                                                                                                              HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
         GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                       CGTGCCATATCCCAGGAGGACCAGCTGGCCGCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                  ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                         AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                    GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                           GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                            IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
                                                                                                                                                                                                                                                                                                     ThrLeuCysLy8GlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
                                                                                                                                                                                                                                                                                                                                                     2
                                                                                                                                                                                                                                                                                                                                                                         AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCAACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                   LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrargIlealaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                           ACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCGGGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCAGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                            aLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      400
                                                1668
                                                                                                                                                480
                                                                                                                                                                                                                                                  1368
                            540
                                                                                      1608
                                                                                                                            1548
                                                                                                                                                                   1488
                                                                                                                                                                                        460
                                                                                                                                                                                                           1428
                                                                                                                                                                                                                              440
                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                          1308
                                                                                                                                                                                                                                                                                                                                  1248
                                                                                                                                                                                                                                                                                                                                                                        1188
                                                                                                                                                                                                                                                                                                                                                                                                                1128
                                                                                                                                                                                                                                                                                                                                                                                                                                   340
                                                                                                                                                                                                                                                                                                                                                                                                                                                       1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      948
                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   708
```

```
RESULT 14
ADC37388
ID ADC37388
ID ADC37
XX ADC37
XX ADC37
XX Nucle
                                                              닭
                                                                                            S
                                                                                                                                                                   Percent Similarity:
Best Local Similarity:
Query Match:
DB:
밁
                     S
                                                                                                                                   US-10-071-838-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-DEC-2001;
03-OCT-2002;
04-OCT-2002;
                                                                                                                                                                                                                                                                                                                                    The present invention relates to novel proteins and their coding sequences (ADC37168-ADC37455), which activate nuclear factor kappa B (NF-kappaB). The proteins and their coding sequences are useful for treating a disease associated with NF-kappaB activation, such as inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases, or ischaemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nuclear factor kappa B; NF-kappaB; inflammation; autoimmune disease; cancer; infectious disease; bone disease; AIDS; neurodegenerative disease; ischaemic disorder; Antiinflammatory; Immunomodulator; Cytostatic; Antimicrobial; Osteopathic; Anti-HIV; Neuroprotective; Nootropic; Cardiant; Gene therapy; human; gene; ds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New purified protein that activates nuclear factor kappa B (NF-kappaB), useful for treating inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases or ischemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nuclear factor kappa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADC37388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ASAH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03-DEC-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO2003048202-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
 815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2003-505282/47.
)B; ADC37389.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        541
                                                               755
                              21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ASAHI
                                                              MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                                                                                                                                                                                                                                                           2647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GluSerSerGlnPheProProGlyPhe
 AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA
                 LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                   (1-549) x
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001JP-00368692.
2001US-0335829P.
2002JP-00291302.
2002US-0415769P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Muramatsu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2002WO-JP012644.
                                                                                                                                                                                                                                                                                                           BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KASEI KK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ĕ
                                                                                                                                                                                                                                                                                                           608 A; 766
                                                                                                                                                                    1.43e-121
2835.00
95.8*
95.8*
95.0*
                                                                                                                                                                                                                                                                                                                                                                                                                                                               221;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                   ADC37388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (NF-kappaB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                             938pp;
                                                                                                                                                                                                                                                                                                           Ç
                                                                                                                                   (1-2647)
                                                                                                                                                                                                                                                                                                                                                                                                                                                               English.
                                                                                                                                                                                                                                                                                                           750
                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                    Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 activating
                                                                                                                                                                                                                                                                                                           G; 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         549
                                                                                                                                                                                                                                                                                                           T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene,
                                                                                                                                                                   2647
526
0
1
22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   221.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 disease;
 874
                              40
                                                               814
                                                                                                 20
                                   δ
                                                                      밁
                                                                                                        S
                                                                                                                                      밁
                                                                                                                                                                          5
                                                                                                                                                                                                            덩
                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                             뮍
                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                  음 성
                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           र्ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                     1709
                                                                                                                                                                                                                          1649
                                                                                                                                                                                                                                                                                           1589
                                                                                                                                                                                                                                                                                                                                                                                                                               1517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1115
                                                                                                                                                                                                                                                                                                                                                             1529
                                               381
                                                                                                                   361
                                                                                                                                                                                   341
                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41
                                                                                   AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                           LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                             LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
                                                                                                                                                                                                                                                                                                               ThrargIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                        TrpAlaArgPheC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                        ITCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                               ATCTCTCTCGGG
                                                 400
                                                                                                                                                                                                                                                        340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1474
                                                                                                                                                                                                                                                                                                                                                             1588
                                                                                                                                                                                                                                                                                                                                                                                                                                1528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                          1708
                                                                                                                                                                                                                                                                                           1648
                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1054
                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         934
```

```
RESULT 15
ABZ11809
ID ABZ11
XX ABZ11
XX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; genome mapping; gene therapy; food supplement; virus; fungus; cell-proliferative disorder; neurodegenerative disease; bacterial; Parkinson's disease; Alzheimer's disease; autoimmune disease; multiple sclerosis; diabetes; genetic disorder; wound; burn; infection; arthritis; cytostatic; immunomodulator; nootropic; neuroprotective; antiparkinsonian; antidiabetic; immunosuppressive; dermatological; haemostatic; vulnerary; fungicide; antibacterial; virucide; protozoacid
New polynucleotides comprising sequences assembled from expressed sequence tags (ESTs), useful for treating cell-proliferative, neurodegenerative, autoimmune, genetic, myeloid or lymphoid, or p
                                                                                                                                                                                                            Tang YT,
                                                                                                                                                                                                                                                                                                 05-MAR-2001; 2001US-00799451
                                                                                                                                                                                                                                                                                                                                                05-MAR-2002; 2002WO-US005095
                                                                                                                                                                                                                                                                                                                                                                                                12-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antiarthritic;
                                                                                                                                                                 Wehrman
                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200270539-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human polynucleotide SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         20-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABZ11809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABZ11809 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1889
                                                                                              2002-759812/82.
DB; ABP69592.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      401
                                                                                                                                                                 'n,
                                                                                                                                           Yang ..
Wang,
                                                                                                                                                                                                                                                           HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                      Zhou P,
Yang Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene;
                                                                                                                                                                 Ģ
                                                                                                                                                            Goodrich RW, A
Ma Y, Yamazaki '
J, Wang D, Drmaı
                                                                                                                                                                                         Ma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         entry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     88.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ĕ
                                                                                                                                                              RW, Asundi V,
azaki V, Chen
Drmanac RT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   549
                                                                                                                                                                                      70,
                                                                                                                                                                                 Zhang J,
R, Wang 2
                                                                                                                                                                                    27
                                                                                                                                                                                      Zhao QA,
Ghosh I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protozoacide
                                                                                                                                                                                      3
                                                                                                                                                                                                            Ren
                                                                                                                                                                                                            ম
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1948
```

```
The invention relates to an isolated polynucleotide (I) comprising a CC nucleotide sequence selected from any of 948 sequences (ABZ11119-CC ABZ12066) or their mature protein coding portion, active domain coding CC protein or complementary sequences. The polynucleotides are useful for cidentifying expressed genes or for physical mapping of human genome. The encoded polypeptides (ABP688902-AB68989) are useful as molecular weight markers, as a food supplement, for generating antibodies, in medical cimaging, screening and diagnostic assays and for treating cell-composition of the compositive diseases, autoimmune diseases (Parkinson's CC proliferative disease), autoimmune diseases (multiple sclerosis, CC diabetes, lupus) genetic disorders, wound, burns, incision, ulcers, liver collabetes, infections (bacterial, viral, fungal, parasitic), collabetes or coagulation disorders, wound, burns, incision, ulcers, liver collabetes, infections (bacterial, viral, fungal, parasitic), collabetes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or coagulation disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NO 691; 1012pp + Sequence Listing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English.
```

Alignment Pred No.: Score:

No.:

Sequence 2072 BP; 525 A; 568

ü

577

G; 402 T; 0 U; 0 Other;

Percent Similarity:
Best Local Similarity:
Query Match:
DB:

2.65e-121 2827.00 95.6% 95.6% 94.8%

Length:
Matches:
Conservative:
Mismatches:
Indels:

2072 525 0 2 2 22 1

US-10-071-838-2 (1-549) x ABZ11809

(1-2072)

S 문 S 문 S 밁 S 밁 S S á 밁 밁 S 밁 吊 S 밁 Ś 181 643 161 583 141 523 463 403 703 121 101 343 163 283 223 81 41 61 21 AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr AGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAGGGCAAGAGGTCATCTGAG MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys ATGGACGTGGTAGAGGTCGCGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG ThrAlaArgGluAlaLlysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA 100 120 762 702 180 642 160 582 140 402 80 342 60 282 40 20 522 462 222

밁

	541 GluSerSerGlnPheProProGlyPhe 549
540 1716	21 AlaargaspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
520 1656	01 ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
500 1596	81 ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
480 1536	61 AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
460 1476	41 GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
440 1416	1 ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
420 1356	01 IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
400 1296	1 ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
380 1236	61 AlaLysProGluCinGlySerSerAlaSerArgProValProAlaSerArgGlyClyLys
360 1176	41 LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro
340 1116	21 TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu
320 1056	01 ThrargIlealaPheLy8ValGlnGlnLy8ArgLeuThrLy8ThrSerArgCy8GlyPro
300 996	281 LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
280 936	CysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly ATCTCTCTCGGG
260 924	41 Hi8ValValAlaThrSerGlnProLy8ThrMetGlyHi8GlnAspLy8Ly8AspLeuCys
240 882	221 LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
220 822	1 LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer

음 성

Search completed: April 5, 2006, 14:49:21 Job time : 1222 secs

```
Regult
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Command line parameters:

-MODEL=frame+ p2n.model -DEV=xlp
-MODEL=frame+ p2n.model -DEV=xlp
-Q=/abss/ABSSWEB spool/US10071838/runat 05042006 141913 5146/app query.fasta_1
-Q=/abss/ABSSWEB spool/US10071838/runat 05042006 1-1.CODECL=0 -LOOPEXT=0
-DB=GenEmbl -QFWT=fastap -SUFFTX=rge -MINMATCH=0:1 -LOOPCL=0 -LOOPEXT=0
-UNITS=bits -START=1 -END=-1 -MATRIX=blosum62 -TRANS=human40.cdi -LIST=45
-DOCALLIGN=200 -THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15 -MODE=LOCAL
-OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MAXILEN=2000000000 -HOST=abs805p
-USER=US10071838 @CGN 1 7415 @runat 05042006 141913 5146 -NCPU=6 -ICPU=3
-NO MMAP -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG -DEV TIMEOUT=120
-WARN TIMEOUT=30 -THRADS=1 -XGAPOF=10 -XGAPEXT=0.5 -FGAPOP=6 -FGAPEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -YGAPÕP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                     Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D8
                                                                                                                                               Score
           2983
2983
2975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  seq length:
seq length:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GenEmbl: *
1: 9b in: *
2: 9b in: *
2: 9b in: *
3: 9b env: *
4: 9b ow: *
5: 9b pat: *
7: 9b pat: *
6: 9b pat: *
7: 9b pat: *
11: 9b sy: 
                                                                                                                                               Query
Match
           100.0
100.0
99.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 April
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5883141 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Egapop 6.0 , Egapext
Delop 6.0 , Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-071-838-2
2983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MDVVEVAGSWWAQEREDIIM....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                         gb ro:
gb sts:
gb sts:
gb sy:
gb un:
gb vi:
gb htg:
gb pl:
                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5, 2006, 14:42:06; Search time 6702 Seconds (without alignments)
4656.379 Million cell updates/sec
           1964
1964
1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                                                                   BB
              ი დ ი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28421725653 residues
   AX775945
AF540953
AX775947
                                                                                                                                                   IJ
                                                                                                                                                                                                                                                      SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     7.05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .....TSGPCLCGLHLESSQFPPGF 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11766282
AX775945 Sequence
AF540953 Homo sapi
AX775947 Sequence
                                                                                                                                        Description
```

CD	TITLE JOURNAL FEATURES source	SOURCE ORGANISM	RESULT A AX775945 LOCUS DEFINITION ACCESSION VERSION KEYWORDS		44 45		c c 40	C 38		a a 34		c 33 5) 2 I 9 80 ·	26 27	224	22.	220	18	16	14	12	10	o oo -	76	4. IU
/mol type="mRNA" /db_xref="taxon:9606" 1. 1650 /note="unnamed protein product /codon start=1 /proteIn_id="CAE11672.1" /db_xref="GI:32693664"	Matsuda, A. and Muramatsu, S. NF-kB activating gene Patent: WO 03048202-A 215 12- Asahi Kasei Kabushiki Kaisha Location/Qualifiers 1. 1964 (Yraniss-Wurne and	ANISM Homo sapiens (human) Eukaryota; Metazoa; Chordata; Craniat Mammalia; Butheria; Euarchontoglires; Hominidae; Homo.	AX775945 Sequence 215 from Patent W003048200 AX775945 AX775945.1 GI:32693663	ALIGNMENTS	1465 48:1 172770 14 1448.5 48:6 163628 14	1487.5 49.9 146243 14 1469 49.2 123925 8	149	1497.5 50.2 185449 14	1500.5 50.3 192881 8	1501 50.3 140152 8 1500.5 50.3 158698 14	1505 50.5 173053 14 1501 50.3 140152 8	1518 50.9 146243 14 1514 50.8 37757 8	1522 51.0 181517 8	1522 51.0 134506 14 1522 51.0 180876 8	2133.5 /1.5 8201 6 2133.5 /1.5 8201 8 2133.5 /1.5 8201 8	2184.5 73.2 8491 8 HSM8078	2191.5 73.5 7878 8 HSTRE21	2595 87.0 1924 8 ECU/2814 2595 87.0 3389 8 AK12283 2191 5 73 5 7878 6 AY32351	2827 94.8 2732 91.6	2827 94.8 2647 6 AX83355	2835 95.0 2847 6 AK7/2515 2827 94.8 2072 6 AR57851 2827 94.8 2647 6 AV775604	2850 95.5 2084 6 AK5/851 2849 95.5 2575 8 BC03367 2849 95.6 2647 6 YV77505	2898.5 97.2 2304 6 AX77594	2945 98.7 2166 8 BC07580 2906.5 97.4 2304 6 AX77594	2971 99.6 2090 8 BC07168 2963 99.3 2072 6 AX08684
rot."	3;	.a; Vertebrata; Buteleostomi; Primates; Catarrhini;	mRNA linear PAT 14-JUL-2003		on io	ğğ	AC139176 Homo sapi AC146857 Homo sapi	ខ្លាំ					AC126327 Homo sapi	M OM	enence Squence Spiens	BX647719 Homo sapi	sapiens	Homo	AK095385 Homo sapi BC058890 Homo sapi	Seque	Sequenc	Homo sa	Sequenc	Homo sa	BC071680 Homo sapi AX086847 Seguence

Score: Pred.

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-071-838-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                No.:
         241
                                         661
                                                                      221
                                                                                                      109
                                                                                                                                 201
                                                                                                                                                                541
                                                                                                                                                                                              181
                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                              101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Scores:
                                                                                                                                                                                                                                                         161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ы
                                        HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                                                                                                                                                                                                                                                                                      LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                                                                                                                                                                                              AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                                                                                                                                                                                         CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                      AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                  GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                             GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (1-549) x AX775945 (1-1964)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /translation="mdvvevagswwaqerediimkyekghraglpedkgpprsynn nydhlgivelpplyareakqirreliimkyekghraglpedkgpprsynn nydhlgivelpplyareakqirrelisrkskrydmlgdwekkskskrlidraykgm pmnirgpwsyvllniemklknygryqjmkekgkrassehiqridddyglkrygllaser drygtkorellhillayeeypyevgycrdlshiaalfllylpeedafwalvqllaser hslogfsisnggtvoglodqeeyvatsgpktwghgdkkdlcggcsplgclirlidg islgitlrupyllyeseqalwpitriafkgkygkktykgggkraftyrsggpwarfcurfyddag islgitlringyvylveseqalweitriafkgkgkriftksggpwarfdckglrgdkappg pparfprprspldlyegpwerfylpppakpeggssasrpvpasrggktlckgdroappg pparfprprspldlyegpwerfylpppakpeggssasrpvpasrggktlckgdroappg pparfprprdlyegpwerfylpppsgcwyralsgeddlapcwgaehfacageggsrflowskerfal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9.43e-95
2983.00
100.0%
100.0%
100.0%
6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1964
549
0
                                                                                                                                                                                                                                                         180
                                                                                                                                                                                                                                                                                                                                                                                   140
                                                                                                                                                                                              200
                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                        160
                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
           260
                                         720
                                                                        240
                                                                                                      660
                                                                                                                                   220
                                                                                                                                                                   600
                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20
```

밁 ð 밁 S 밁 ક

721

CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT

780

ACCESSION VERSION KEYWORDS SOURCE ORGANISM

Homo sapiens Eukaryota; Metazoa; Mammalia; Eutheria; Homo sapiens

Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini;

AF540953 Homo sapiens I complete cds. AF540953 AF540953.1 G:

GI:23452664 (human)

8 8 8 8 8 8

밁 δ 밁 ર્ક 밁 S 밁 δ 밁 Ş 밁 δ 밁 δ

RESULT 2 AF540953 LOCUS DEFINITION	Дb	S S	P 4	? {	g &	DЬ	Ş	DЬ	Q	문 #	₹	DЬ	Ş	당 .	Q	рь	§	Db	γ0	Db	γQ	рb	Qy	Дb	Ş	дb	Q	Db	Q
2 53 AF540953 1964 bp mRNA linear PRI 02-OCT-2002 TION Homo sapiens Rab GTPase-activating protein PRC17 (PRC17) mRNA,	1621 GAAAGTTCTCAGTTCCCTCCAGGCTTC 1647	541 GluSerSerGlnPheProProGlyPhe 549	1561 GCTAGGGACGAACAGCCGTGTGCTCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACCTTG 1620	54	501 ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg 520	CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG 1	481 ArgAlaīleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGiu 500	1381 GACCTGGACGTAGAGGGCCCTTGGTTCCGCCATTATGATTTCAGACAGA	461 AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal 480	GAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG 13		1261 GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG 1320	421 ValArgGluAapThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln 440		401 IleTrpSerAlaSerProProArqAlaProArqSerSerThrProCysProGlyGlyAla 420	1141 ACCTTTGCAAGGGGACAGGCACCTCCAGGCCCAGCAGCCCGGTTCCCGGGGCCC 1200	381 ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro 400	1081 GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG 1140	361 AlaLysproGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys 380	1021 AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA 1080	341 LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro 360	961 TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC 1020	321 TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340	901 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCCACGAAGACGTCCAGGTGTGGCCCC 960	301 ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro 320	841 CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA 900	281 LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle 300	781 GGGCAGTGTTCCCCCGTTAGGCTGCCTCATCCGGGATATTGATTG	261 GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly 280

Qy 61 ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp 80	Db 1 ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGCACAAGAGCGAGAGACATCATTATG 60 Qy 21 LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg 40	ed. No.: 9.43e-95 Length: 1964 ore: 2983.00 Matches: 549 rcent Similarity: 100.0% Conservative: 0 st Local Similarity: 100.0% Mismatches: 0 ery Match: 100.0% Indels: 0 ery Match: 8 Gaps: 0 -10-071-838-2 (1-549) x AF540953 (1-1964) 1 MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet	//gene="PRC17" //codon_start=1 //product="Rab GTPase-activating protein PRC17" //product="Rab GTPase-activating protein PRC17" //protein_id="RAN33117_1" //db_xref="G1:23452665" //translation="MDVVEVAGSWWAQEREDIIWKYEKGHRAGLPEDKGPKPFRSYNN NVDHLGIVHETELPPLTAREAKGINERISKSKRVDMLGDWEKYKSSRKLIDRAYKGM PMNIRGPMWSVLLNIEEMKLKNPGRYQIMKEKGKRSSEHIQRIDRDVSGTLRKHIFFR DRYGTKQRELLHILLAYEETNPEVGYCRUSHILALFLLYLPEEDAFWALVQLLASER' HSLQGFHSPNGGTVQGLQDQQEHVVATSQPKTMGHQDKKDLCGQCSPLGCLIRILIDG ISLGLTLRLMDVYLVEGSQALMPITRIAFKVQQKRLTKTSRCGFWARFCCRFVDTWAR DEDTTULKHLRASMKKLTRKQGDLPPAKPEQGGSSAFFVPASRGCKTLCKGDRQAPPG PARFPRPIWSASPPAPRSSTPCPGGAVREDTYPVGTQQVPSPALAQGGPQGSWRFL QWNSMFRLFTDLDVEGFWFRHYDFRQSCGVTRAISQEDQLAPCWQAEHPAERVRSAFAA PSTDSDQGTPFRARDEQPCAPTSGPCLCGLHLESSQFPPGF" ORIGIN	/mol_type="nRNA" /db_xref="taxon:9606" /chromosome=17" /map="17q11" gene 11964 /gene="PRC17" CDS 11650	HOMINIdae; Homo. 1 (bases 1 to 1964) AUTHORS Pei,L., Peng,Y., Ling,X.B., van Eyndhoven,W.G., Nguyen,K.C.Q., TITLE PRC17, a novel oncogene encoding a Rab GTPase-activating protein, is amplified in prostate cancer JOURNAL Cancer Res. (2002) In press. REFERENCE 2 (bases 1 to 1964) AUTHORS Li,J.L., Peng,Y. and Powers,S TITLE Direct Submission JOURNAL Submitted (23 AUG-2002) Genomics, Tularik, Inc, 266 E Pulaski Road, EEATURES Source /organism="Homo sapiens"
Q	5 8 8 8 8	8 8 8 8 8	B & B & B & B & B	2 B 8 5	\$ 5 B 5 B 5 B 5
		321 TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspCluAspThrValLeu	661 CTGCAGGGATTTCACAGCCCAAATGGCGGACCGTCCAGGGGCTCCAAGACCAAGACCAACAGGAG 241 HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys		121 LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu

US-10-071-838-2 (1-549) x AX775947 (1-1964) Oy 1 MethapvalvalalaGlySerTrpTrphlaGlnGluArgGluAapIleIleMet 20	0	ISLGETILLEMDVYLVGEROALMETITÄRKYQGETIVENGEVAGETEVERTÄRENGE TÄRENGE TÄR TÄRENGE TÄRENGE TÄRENGE TÄRENGE TÄRENGE	/codon start=1 //proteIn_id="CAE11673.1" //db xref="GI:32693666" //db xref="GI:32693666" //translation="mdvVerVaGswwaQeredIIMKYEKGHRAGLPEDKGPKPFRSYNN /translation="mdvVerVaGswwaQeredIIMKYEKGHRAGLPEDKGPKPFRSYNN NVDHLGIVHETELPPITAREAKQIRREISRKSKWVDMLGDWEKYKSSRKLIDRAYKGM PWMIRGPWMSVILINIEEMKLKNPGRYQIMKEKGKRSSEHIQRIDRUVSGTLRKHIFFR PRYGTKQRELHHILLAYEEMKLKNPGRYQTEDLSHIJAHFILYLPEEDAFWALVQLLASER DRYGTKQRELHHILLAYEEMKLKNPGRYGTEDLSHIJAHFILYLPEEDAFWALVQLLASER	/or /mo /db 1.			17	Qy 541 GluSerSerGlnPheProProGlyPhe 549	Qy 521 AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu 540	Qy 501 ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg 520	Db 1441 CGTGCCATATCCCAGGAGGACCAGCTGGCCCCTGCTGGCAGGCTGAACACCCTGCGGAG 1500
\$ \$ \$ \$ \$ \$ \$	n	D Q D Q	B Q B Q	D 9	D	рь Фу	Q B Q	₽ Q	D 64	φ 4 9	DЬ
AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys 380	321 TzpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340	281 LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle 300	241 HisValValAlaThrSerGlnProLyaThrMetGlyHisGlnAspLyeLyaBAspLeuCys 260	LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu 2 	181 AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr 200	421 CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG 480 161 AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 180	121 LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu 140	101 GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 120 	81 MetLeuGlyAspTrpGluLySTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100 	61 ThrAlaArgGluAlaLy8GlnIleArgArgGluIleSerArgLy8SerLy8TrpValA8p 80 	

```
JOURNAL
PUBMED
REFERENCE
AUTHORS
TITLE
JOURNAL
  REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 4
BC071680
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                         CONSRIM
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                                                                 Hominidae; Homo.

12 (bases 1 to 2090)

13 (bases 9 to 2090)

14 (bases 9 to 2090)

15 Strausberg RL, Feingold EA, Grouse LH, Derge JG, Klausner RD, Strausberg RL, Feingold EA, Grouse LH, Derge JG, Altschul SF, Zeeberg Collins FS, Wagner L, Shenmen CM, Schuler GD, Altschul SF, Zeeberg B, Buetow KH, Schaefer CF, Bhat NK, Hopkins RF, Jordan H, Moore T, Max SI, Wang J, Hsieh F, Diatchenko L, Marusina K, Farmer AA, Rubin GM, Hong L, Stapleton M, Soares MB, Bonaldo MF, Casavant TL, Scheetz TE, Brownstein MJ, Usdin TB, Toshiyuki S, Carninci P, Prange C, Raha SS, Loquellano NA, Peters GJ, Abramason RD, Mullahy SJ, Bosak SA, McEwan PJ, McKernan KJ, Malek JA, Gunaratne PH, SJ, Bosak SA, McEwan PJ, McKernan KJ, Malek JA, Gunaratne PH, Richards S, Worley KC, Hale S, Garcia AM, Gay LJ, Hulyk SW, Villalon DK, Muzny DM, Sodergren EJ, Lu X, Gibbs RA, Fahey J, Helton E, Ketteman M, Madan A, Rodrigues S, Sanchez A, Whiting M, Madan A, Young AC, Shevchenko Y, Bouffard GG, Blakesley RW, Touchman JW, Green ED, Dickson MC, Rodriguez AC, Grimwood J, Schmutz J, Myers RW, Butterfield YS, Krzywinski MI, Skalaka U, Smailus DE, Schnerch A, Schein JE, Jones SJ and Marra MA.

Mammalian Gene Collection Program Team
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2090 bp mRNA
Homo sapiens TBC1 domain family, member 3,
MGC:87891 IMAGE:5165385), complete cds.
BC071680
                                                            Submitted (01-JUN-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                                 2 (bases 1 to 2090)
Director MGC Project.
                                                                                                                                                                                                                                       human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A.
                                                                                                                                                                                                                                                                                  Generation and initial analysis of more than 15,000 full-length
                                                                                                                                               Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BC071680.1 GI:47939522
                                                                                                                                                                                                                     12477932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GANAGTTCTCAGTTCCCTCCAGGCTTC 1647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTTGGTCAGCTTCCCCGCCACGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         549
                                                                                                                                                                                                                                       99 (26),
                                                                                                                                                                                                                                         16899-16903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA (cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRI 08-MAR-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1320
```

```
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Sequencing Group at the Stanford Human Genome
Center, Stanford University School of Medicine, Stanford, CA 94305
Web site:
http://www-shgc.stanford.edu
Contact: (Dickson, Mark) mcd@paxil.stanford.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Clone distribution: MGC clone distribution information can be found through the I.M.A.G.B. Consortium/ILINL at: http://image.llnl.gov Series: IRAK Plate: 166 Row: golumn: 13 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 14149984. Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dickson, M., Schmutz, J., Grimwood, J., Rodriquez,
                                                                                                                                                                                                                                                                                                                                            /product="TBC1 domain family, member 3"
/protein id="AAH71680.1"
/bxref="GI-47939523"
/db_xref="MGHED: 84218"
/db_xref="MIM:607741"
/db_xref="MIM:607741"
/db_xref="MIM:607741"
/db_xref="MIM:607741"
/db_xref="MIM:607741"
/translation="MDVVEVAACSWWAQEREDIIMKYEKGHRAGLPEDKGPKPFRSYNN
NVDHLGIVHETELPPLTAREAKQIRREISRKSKWVDMLGDWEKYKSSRKLIDRAYKGW
PMNIRGPWMSVLLNIEBMKLKNPGRYQLMKEKGKRSSEHIQRIDRDISCTLRKHMFFR
PMNIRGPMMSVLLNIEBMKLKNPGRYQLMKEKGKRSSEHIQRIDRDISCTLRKHMFFR
PMNIRGPMMSVLLNIEBMKLKNPGRYQLMKEKGKRSSEHIQRIDRDISCTLRKHMFFR
PMNIRGPMMSVLLNIEBMCLKNPGRYQLMKEKGKRSSEHIQRIDRDISCTLRKHMFFR
PMNIRGPMMSVLLNIEBMCLKNPGRYQLMSHAMALVOLLASER
                                    HSLQGFHSPNGGTVQGLQDQOEHVVATSQPKTMGHQDKKDLCGQCSPLGCLIRILIDG ISLGLTLRLMDVYLVEGEQALMPITRLAFKVQQKRLTKTSRCGMAR FCNRFVDTWAR DEDTVLKHLRASMKKLTRKQGDLPPAKPEQGSSASPAASRGGKTLCKGAPPG PPAKPEQGSSASPAASRGGKTLCKAPAPG PPAKPERPRIMSASPPRAPRSSTPCPGGAVREDTYPVGTQGVPSPALAQGGPQQSWRFL QWNSMPRLPTDLDVEGPWFRHYDFRQSCWVRAISQEDQLAPCWQAEHPAERVRSAFAA PSTDSDQGTPFRARDEQQCAPTSGPCLCGLHLESSQFPPGF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="synonyms: PRC17,
/db_xref="GeneID:84218"
/db_xref="MIM:607741"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /lab
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tissue type="Brain, adult/clone_lib="NIH_MGC_119"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 codon_start=1/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene="TBC1D3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="TBC1D3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               clone="MGC:87891 IMAGE:5165385"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            pCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           medulla"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Α.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and Myers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    found
```

```
δ
                                                         문
                                                                                  S
                                                                                                                      밁
                                                                                                                                                 Ś
밁
                                                                                                                                                                                     US-10-071-838-2 (1-549) x BC071680 (1-2090)
                                                                                                                                                                                                                      Query Match:
DB:
                                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                               Alignment Scores:
                                                                                                                                                                                                                                                                                                  No.:
                                                            161
                                                                                                                        101
 221
                            41
                                                                                        21
                                                                                                                                                       \vdash
                   SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                             LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                        ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                          MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
 AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                            AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                   2.6e-94
2971.00
99.8%
99.5%
99.6%
                                                                                                                                                                                                                                                                                 Length:
Matches:
                                                                                                                                                                                                                                     Mismatches:
Indels:
                                                                                                                                                                                                                                                                 Conservative:
```

220

40

20

```
1301
                                                                                 1241
                                                                                                                                       1181
                                                                                                                                                                                              1121
                                                                                                                                                                                                                                                   1061
                                                                                                                                                                                                                                                                                                           1001
                                                    401
                                                                                                            381
                                                                                                                                                                  361
                                                                                                                                                                                                                        341
                                                                                                                                                                                                                                                                               321
                                                                                                                                                                                                                                                                                                                                                                                                                                                261
 421
                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                941
                                                                                                                                                                                                                                                                                                                                                                                            281
                                                                                                                                                                                                                                                                                                                                                                                                                       881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                               ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
                                                                                                                                                      AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                                                                                                                                                                                                                       ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
                                           | IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
                                                                                                                                        GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                            LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                      TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                     TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu
                                                                                                                                                                                                                                                                                                            ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                         ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                               AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAACATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                               1180
                                                                                                                                                                                                                                                      1120
                                                                                                                                                                                                                                                                                340
                                                                                                                                                                                                                                                                                                                                                                  1000
                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      340
                                                       420
                                                                                 1300
                                                                                                            400
                                                                                                                                        1240
                                                                                                                                                                    380
                                                                                                                                                                                                                                                                                                            1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100
                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                      320
                                                                                                                                                                                                                                                                                                                                                                                                                         940
                                                                                                                                                                                                                                                                                                                                                                                                                                                   280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 80
```

S

유

문

8 8 8 8 8 8 8

음 성 음 성

음 성

음 중 음

S

음 성

ঠ

8

음 성 음 성

음 성

음 성 음 성

중 유

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                    SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                  RESULT 5
AX086847
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
음 성
                          g
                                         중 유
                                                                        Ş
                                                                                                            Best I
Query
DB:
                                                                                                                  Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                        음 성
                                                                                                                                                                                                                                                                                                                                                                                                                        8 8 8 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                            US-10-071-838-2
                                                                                                                                          Score:
                                                                                                                                                                         ORIGIN
                                                                                                                                                                                                               FEATURES
                                                                                                                                                   Мо
:
                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                         Homo Sapiens
Homo sapiens
Eukaryota; Metazoa; Ch
"ammalla; Eutheria; E
                                                                                                                                                                                                                                                                                                                                                                 1721
                                                                                                                                                                                                                                                                                                                                                                                               1661
                                                                                                                                                                                                                                                                                                                                                                                                                              1601
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        441
                               159
                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                             521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          461
219
                                                                                                                                                                                                                                                                                                                                                                                                                                            501
               4
                                              21
                                                              99
                                                                            \mu
                                                                                                                                                                                                            Wiemann,S.
Human dna sequences
Patent: WO 0112659-A 799 22-I
German Human Genome Project
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                  AX086847
Sequence
AX086847
                                                                                                                                                                                                                                                                                                           AX086847.1
LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                              MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                                                                                                                                                                                                                                                                                                                 GAAAGTTCTCAGTTCCCTCCAGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                               GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                      ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                             (1-549)
                                                                                                                                                                                                                                                                                                                          799
                                                                                                                                                                              /organism="Homo sapiens"
/mol_type="unassigned DN
/db_xref="taxon:9606"
                                                                                                            4.86e-94
2963.00
99.6%
99.3%
99.3%
                                                                                            x AX086847
                                                                                                                                                                                                        .2072
                                                                                                                                                                                                                                                                                                           GI:13276047
                                                                                                                                                                                                                                                                                                                          from
                                                                                                                                                                                                                                                                                                                          Patent
                                                                                                                                                                                                                                                                     Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini;
                                                                                             (1-2072)
                                                                                                                                                                                                                                                                                                                          2072 bp
t WO0112659.
                                                                                                                                                                                                                       22-FEB-2001;
ect (DE)
                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                         DNA"
                                                                                                                                                                                                                                                                                                                                  DNA
                                                                                                            2072
545
2
0
0
                                                                                                                                                                                                                                                                                                                                  linear
                                                                                                                                                                                                                                                                                                                                   PAT
                                                                                                                                                                                                                                                                                                                                   09-MAR-2001
                 60
                                               40
                                                                                                                                                                                                                                                                                                                                                                                                               540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1420
 278
                                                                             20
                                                                                                                                                                                                                                                                                                                                                                                                                              1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1540
                               218
                                                               158
                                                                                                                                                                                                                                                                                                                                                                                                                                              520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         460
```

```
1059
                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                            341
 421
                                                                  401
                                                                                                                                                                                                                                                                                                                                                                                 999
                                                                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                      939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln 440
                                                                                                                                                                                                                                                            LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                           AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys 380
                                                                                                                                                                                                                                                                                                                                  TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340
                                                                                                                                                                                                                                                                                                                                                                                                   ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                    IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCygProGlyGlyAla 420
                                                                                                                        ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGCTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATGTGGTAGCCACGTCACAACCCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAAGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                1358
                                                                                                      1298
                                                                                                                                                                       1238
                                                                                                                                                                                                                                        1178
                                                                                                                                                                                                                                                                                                             1118
                                                                                                                                                                                                                                                                                                                                                                              1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                    998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           338
```

음 성 음 성 음

밁

ð

8

δ

유정

음 원

밁

ક

8 8 8 8 8 8 8 8 8 8 8 8 8

ફ

В

중 유

```
JOURNAL
PUBMED
REFERENCE
AUTHORS
CONSRIM
TITLE
                                  REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 6
BC075809
LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOURCE
                                                                                                                                                                                                                                                                               CONSRTM
TITLE
                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                 RS Strausberg, R.D., Felingold, E.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, L., Schaefer, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Haleh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.M.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,
Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
Boufstand, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
Butterfield, Y.S., Krzywinski, M.I., Skaiska, U., Smailus, D.E.,
Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.

TM Mammalian Gene Collection Program Team
Generation and initial analysis of more than 15,000 full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                461
Direct Submission
Submitted (06-JUL-2004) National Institutes of Health,
Gene Collection (MCC), Bethesda, MD 20892-2590, USA
NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                   human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BC075809 2166 bp mRNA 1
Homo sapiens TBC1 domain family, member 3B,
MGC:87892 IMAGE:5170064), complete cds.
                                                                                                                                                  NIH MGC Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAAGTTCTCAGTTCCCTCCAGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCTAGGGACGAACAGCAGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (bases 1 to 2166)
                                                                                                                                                                                           (bases 1 to 2166)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GI:49902676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    549
                                                                                                                                                                                                                                     99 (26),
                                                                                                                                                                                                                                        16899-16903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear PRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRI 17-MAY-2005
                                                                                                      Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1538
```

```
Alignment s
Pred. No.:
Score:
                                                                                                                                                                                                                                                                                                           Best I
Query
DB:
                                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                         US-10-071-838-2 (1-549) x BC075809
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    source
327
                                                                   267
                                                                                                                                     207
                                                                                                                                                                                                       147
                                                                                                                                                                                                                                                                                                                                                                                                               Scores:
                              61
                                                                                                  41
                                                                                                                                                                     21
                                                                                                                                                                                                                                       H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNI at: http://image.llnl.gov Series: IRAK Plate: 166 Row: h Column: 20 This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 14149984. Location/Qualifiers
                   ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                     SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                           MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                                                                                     AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                         LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                 AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Isue Procurement: Life Technologies, Inc.

A Library Preparation: Life Technologies, Inc.

A Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

1 Sequencing by: Sequencing Group at the Stanford Human

1 ter, Stanford University School of Medicine, Stanford,

1 site:

http://www-shgc.stanford.edu

1 tact: (Dickson, Mark) mcd@paxil.stanford.edu

1 klson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and
                                                                                                                                                                                                                                                                                                                                                                                                                                                          /gene="TBC1D3B"
/codon_start=1
/codon_start=1
/product="TBC1 domain family, member 3B"
/protein_id="AAH75809.1"
/protein_id="AAH75809.1"
/db_xref="G1:49902677"
/db_xref="G1:49902677"
/db_xref="MDVVEVAGSWWAQEREDIIMKYEKGHRAGLPEDKGPKPFRSYNN
/translation="MDVVEVAGSWWAQEREDIIMKYEKGHRAGLPEDKGPKPFRSYNN
NVDHLGIVHETELPPLTAREAKQIRREISRKSKWVDMLGDWEKYKSSRKLIDRAYKGM
PMNIRGPMWSYLLNIEEMKLKNPGRYQIMKEKGKRASSEHJQRIDDISGTLRRHNFFR
DRYGTKQRELLHIILLAYEEYNPEVGYCRDLSHIAALFLLYLPEEDAFWALFUCLASER
HSLQGFHSPNGGTVQGLQDQGEHVVATSGSKTWGHQDKKDICGGCSPLGCLIRILIDR
ISLGLTLRLWDYYLVEGEQALMPITRIAFKVQQKRLTKTSRCGPWARFCNRFVDTWAR
DDDTYLKHLRASMKKLTRKQGDLPPPAKFEGGSSASRVEYDASRGGKTLCKGDRQAPPG
PPARFPRINGASSPRAPRSSTPCPGGAKNREDTYPVGTQGCVPSPALAQGGOGSNRFL
QWNSMPRLPTDLDVEGPWFRHYDFRQSCWVRAISQEDQLAPCWQAEHPAERVRSAFAA
PGTDSDQGTPFRARDEQQCAPTSGPCLCGLHLESSQFPPGF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /gene="TBC1D3B"
/note="synonym: PRC17"
/db_xref="GeneID:414059"
147. .1796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /mol_type="mRNA"
/db_xref="taxon:9606"
/db_xref="taxon:9606"
/clone="MGC:87892 IMAGE:5170064"
/tlssue_type="Brain, adult medull
/clone_Tib="NIH_MGC_119"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              note="Vector:
                                                                                                                                                                                                                                                                                                                         2.11e-93
2945.00
99.3%
98.5%
98.7%
                                                                                                                                                                                                         CGCGGGTAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                           (1-2166)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              pCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                        Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  medulla"
                                                                                                                                                                                                                                                                                                         2166
541
4
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genome
CA 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Myers,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        found
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94305
 386
                                 80
                                                                 326
                                                                                                     60
                                                                                                                                     266
                                                                                                                                                                     40
                                                                                                                                                                                                       206
                                                                                                                                                                                                                                         20
                                     र्
                                                                       밁
                                                                                                            S
                                                                                                                                                     밁
                                                                                                                                                                           S
                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       皮
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                       1287
                                                                                                                                                                                                                           1227
                                                                                                                                                                                                                                                                                             1167
                                                                                                                                                                                                                                                                                                                                                               1107
                                                                                                                                                                                                                                                                                                                                                                                                                                 1047
                                                                                                                                                                                                                                                                                                                                                                                               321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              687
                                                 421
                                                                                                                   401
                                                                                                                                                                                     381
                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                             341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HislleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisllePhePheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100
                                     ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
                                                                                     LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro 360
                                                                                                                                                                                                                                                                                                                                                                                 TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HisvalvalAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlnGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                         AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys 380
                                                                                                                                                                                                                                                                                           AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATGTGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACATCCAGCGCATCGACCGGGACATAAGCGGGACATTAAGGAGGCATATGTTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                   GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                     ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                       CTGCAAGGGGGACAGGCCAGGCCCTCCAGGCCCACCAGCCCGGTTCCCGCGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rgaggaggatgcattctgggcactggtgcagctgctggccagtgagaggcactcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1046
                                                     440
                                                                                                                       420
                                                                                                                                                                                       400
                                                                                                                                                                                                                                                                                               1226
                                                                                                                                                                                                                                                                                                                                                               1166
                                                                                                                                                                                                                                                                                                                                                                                                                                   1106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            140
                     1466
                                                                                     1406
                                                                                                                                                         1346
                                                                                                                                                                                                                           1286
```

300 986 926

966 240 908 220 746 200 989 180 626 160 566

밁 8 밁 ঠ 몽 S

밁 ঠ

Alignment Scores: Pred. No.: 98.48 Best Local Similarity: 99.48 Query Match: 97.48 DB: 09.10-071-838-2 (1-549) x AX775943 (1-2304) Qy 1 MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet 20	NVDHLGI HERTEL PUTAREAQGI REBI SEKSKWINMLGBOMEKKE KAS KIN NVDHLGI HERTEL PUTAREAQGI REBI SEKSKWINMLGBOMEKYKSEKIL IDRAYKEN PINLI REPIMWSYLLNYEEMKLKINDERKYL MKEKIGKRESEH IQRI DRDVSGTLRKH I ER DRYGTKORELLHI LLAYEEYNPEVGYCRDLSHI AALFLLYLPEEDAFWALVQLLASER HSLQGFISPNGGTVQGIQDQOBHVVAATSQPKTWGHQDKXDLCGQCSPLGCLLRI LIDG ISLGITLRLMDYLVEGEGALMPITRI PKYQQKRLTKTSRCGFMARFCINRFUTWAR DEDTVLKHLRASMKKLTRKQGDLPPAAKPEQGSSASRPVPASRGGKTLCKGDRQAPPG PFGQLPHGHLVLPHPVLVGLSGKTPTLWALRVCPARPWLREDLRVPGDSCSGTPCPA SQRTWT" ORIGIN	/organism="Homo sapiens" /mol_type="mRNA" /db_xref="taxon:9606" 3621732 CDS	and Muramatsu, vating gene 03048202-A 213 i Kabushiki Kai ocation/Qualifi	DEFINITION Sequence 213 from Patent WOO3048202. ACCESSION AX775943 VERSION AX775943.1 GI:32693661 KEYWORDS SOURCE Homo sapiens (human) ORGANISM Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;	541 GluSerSerGlnPheProProGlyPhe 549	501 ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg	Oy 441 GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr 460
Q	8 8 8 8 8	\$ 40 AG	B & B &	5 8 8 8	Q	D	D Q D Q D
TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu	281 GINGHAM SEFF FOLENCY Y SHELL EAR GILE ENLI LEAD BY LIESET LEUGY 280	LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu	201 LeuProGluGluAspAlaPheTrpAlaLeuValGluCluGLGGCCAGTGAGAGGCAGCTCC 1021	HisleGinArgleAspArgAspValSerGlyThrLeuArgLysHisllePhePheArg	101 GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 120	61 ThralaargGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp 80	

```
RESULT 8
AX775941
LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                    KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         음 중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      401
                                                                                                                                                                                                                                                                                                                                        Homo sapiens (human)
Homo sapiens
Bukaryota; Metazoa; C
Mammalia; Eutheria; E
                                                                                                                                                                                                                                                                                                                                                                                                             AX775941
Sequence 211 i
AX775941
AX775941.1 G:
                                                                                                                                                                                                                                     NF-kB activating gene
Patent: WO 03048202-A 211 12-JUN-2003;
Asahi Kasei Kabushiki Kaisha (JP)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                  Mateuda, A. and Muramateu, S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TT-TGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT 1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ArgValArgSerAlaPheAlaAlaProSerThrAgpSerAgpGlnGlyThrProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAAGTTCTCAGTTCCCTCCAGGCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
/codon_start=1
/protein_id="Ca21670.1"
/protein_id="Ca21670.1"
/protein_id="Ca21670.1"
/db_xref="GI:3269360"
/db_xref="GI:3269360"
/translation="MDVVEVAGSWWAQEREDIIMKYEKGHRAGLPEDKGPKPFRSYNN
/translation="MDVVEVAGSWWAQEREDIIMKYEKGHRAGLPEDKGPKPFRSYNN
/translation="MDVVEVAGSWWAQEREDIIMKYEKGHRAGLPEDKGPKPTCLRGHIFFR
PRYGTKQRELLHILLAYEEYNPEVGYCRDLSHIAALFLLYLPEEDAFWALVQLLASER
DRYGTKQRELLHILLAYEEYNPEVGYCRDLSHIAALFLLYLPEEDAFWALVQLLASER
DRYGTKQRELHILLAYEEYNPEVGYCRDLSHIAALFLLYLPEEDAFWALVQLLASER
DRYGTKQRENGGLODQCHIVVATSOPKTWGHQDKKDLCGCCSPLGCLIRILIDG
ISLGLTLRIMDVYLVEGEQALMPITRIAFKVQQKRITKTSRCGFWARFCKTEVDTWAR
DEDTVLKHIRASMKKLTRKQGDLDGPAKFEQGSSASRFVDASRGGKTLKGDRQAFG
PFGQLPRHGHLVLPHPVLVGLSGKTPTLWALRVCPARFWLREDLRVPGDSCSGTPCPA
                                                                                                                                                                   /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
362__1732
                                                                                                                                                       note="unnamed protein product"
                                                                                                                                                                                                                                                                                                                              Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                GI:32693659
                                                                                                                                                                                                                                                                                                                                                                                                                                           from
                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent
                                                                                                                                                                                                                                                                                                                                        Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                          2304 bp
: WO03048202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         549
                                                                                                                                                                                                                                                                                                                                                                                                                                                         mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                          PAT 14-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     र्ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭐
                  음 중
                                                              뮹
                                                                                            ঠ
                                                                                                                               밁
                                                                                                                                                ð
                                                                                                                                                                                  밁
                                                                                                                                                                                                         5
                                                                                                                                                                                                                                  닭
                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                           १
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-071-838-2 (1-549)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Scores:
                                                                                                                                                          241
                                                                                                                                                                                                                                            962
                                                                                                                                                                                                                                                                                                     902
                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                          842
                                                                                                                                                                                                                                                                                                                                                                                    161
                                                                                                                                                                                                                                                                                                                                                                                                                 782
                                                                                                                                                                                                                                                                                                                                                                                                                                           141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              362
                                                                                                                                                                                                                221
                                                                                                                                                                                                                                                                        201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   21
                                                                                                                                                   HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysAspLeuCys
                                                                                                                                                                                                   LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu
                                                                                                                                                                                                                                                           LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                                                                                  AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                                                                                        AspArgTyrG1yThrLysG1nArgG1uLeuLeuHisI1eLeuLeuA1aTyrG1uG1uTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                 HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAATACGAAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                    LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                         GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                                                                                                                                                                                                                                           GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                 CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGGACGTGGTAGAGGTCGCGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                    CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                                                                                        CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                               CITCCI
                                                                                                                                                                                                                                                                                                       AACC
                                                                                                                                                                                                                                            "GAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ×
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8.98e-92
2898.50
98.2%
98.2%
97.2%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AX775941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (1-2304)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2304
539
0
3
                                                                             CGGGATCTCTCTCGGG
                                                 300
                                                                                                                                 1141
                                                                                                       280
                                                                                                                                                                                         1081
                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    40
                                                                           1201
                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                           220
                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                  200
                                                                                                                                                                                                                                                                                                                                                                                                                   841
                                                                                                                                                                                                                                                                                                                                                                                                                                                160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20
                                                                                                                                                            260
                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
```

```
AR578516
LOCUS
DEFINITION
ACCESSION
VERSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                           ક
                                                                                                                                                                                                                                                                    음 성 음
                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                    ક
                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                              र्
                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음 성
                                                  EATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1600
                                                                                                                                                                                                                                                                                                              1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1442
                                                                                                                                                                                                                             1960
                                                                                                                                                                                                                                                                                                                                                                                                                                                          441
                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                  461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                             1 (bases 1 to 2084)

Tang, Y.T., Goodrich R.W., Asundi, V. and Cathepsin V-like polypeptides
Patent: US 6783969-A 692 31-AUG-2004;
Nuvelo, Inc.; Sunnyvale, CA
Location/Qualifiers
                                                                                                                                                     AR578516
Sequence 69
AR578516
AR578516.1
                                                                                                            Unclassified
                                                                                                                        Unknown
                                                                                                                                                                                                                            GAAAGTTCTCAGTTCCCTCCAGGCTTC
                                                                                                                                                                                                                                       GluSerSerGlnPheProProGlyPhe
                                                                                                                                                                                                                                                                                AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
                                                                                                                                                                                                                                                                                                                        ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                                                                                                                                  ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                                                                                                                                                                                                                                                                                       AspleuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TT-TGGTCAGCTTCCCCGCCACGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla
                                                                                                                                                                                                                                                                                                              CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrargIlealaPheLyeValGlnGlnLyeArgLeuThrLyeThrSerArgCyeGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCAACCCCCA
                                                                                                                                                                           692
                   /organism="unknown"
/mol_type="genomic DNA"
                                        .2084
                                                                                                                                                      GI:56581312
                                                                                                                                                                          from
                                                                                                                                                                          patent
                                                                                                                                                                          2084 bp DNA
: US 6783969.
                                                                                                                                                                                                                             1986
                                                                                                                                                                                                                                                 549
                                                                                          Drmanac, R.T
                                                                                                                                                                                    linear
                                                                                                                                                                                    PAT
                                                                                                                                                                                    14-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                         460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                              1899
                                                                                                                                                                                                                                                                                                                                                      1839
                                                                                                                                                                                                                                                                                                                                                                         500
                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                              1779
                                                                                                                                                                                                                                                                                                                                                                                                                                     1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alignment Scores:
Pred. No.:
Score:
Score:
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
             5
                                      밁
                                                    참 유
                                                                                            δ
                                                                                                                     밁
                                                                                                                                    S
                                                                                                                                                              밁
                                                                                                                                                                              S
                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                             밁
 밁
                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-071-838-2
 1009
                  301
                                                                                                261
                                                                                                                                                                                                                         201
                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                           161
                                                           281
                                                                              889
                                                                                                                      829
                                                                                                                                          241
                                                                                                                                                               769
                                                                                                                                                                                  221
                                                                                                                                                                                                       709
                                                                                                                                                                                                                                                649
                                                                                                                                                                                                                                                                                        589
                                                                                                                                                                                                                                                                                                                                529
                                                                                                                                                                                                                                                                                                                                                                         523
                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                463
                                                                                                                                                                                                                                                                                                                                                                                                                                                        403
                                                                                                                                                                                                                                                                                                                                                    141
                                                                                                                                                                                                                                                                                                                                                                                                                                    101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              41
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21
ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro
                                                  LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                          GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly
                                                                                                                                    HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys
                                                                                                                                                              CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGAGCAGTGAGAGGCACTCC
                                                                                                                                                                                                                LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
                                                                                                                                                                                                                                                          AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr
                                                                                                                                                                                                                                                                                                   AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                                                                                                                                                                                                                               LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
                                                                                                                                                                                                                                                                                                                                                                                                                            GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                              CATGTGGTAGCCACGTCACAACCCCAAGACCATGGGGCATCAGGACAAGAACATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                  GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                AACCCGGAGGTGGGC
                                                                                                                                                                                                                                                                                        GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ThralaargGlualaLysGlnIleargArgGluIleSerArgLysSerLysTrpValasp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (1-549) x AR578516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3.83e-90
2850.00
96.4%
96.2%
95.5%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (1-2084)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
 1068
                                        1008
                                                                                                                                                                                                                                                                                                                                                                                           140
                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                              948
                                                                                                    280
                                                                                                                       888
                                                                                                                                         260
                                                                                                                                                              828
                                                                                                                                                                                  240
                                                                                                                                                                                                      768
                                                                                                                                                                                                                          220
                                                                                                                                                                                                                                              708
                                                                                                                                                                                                                                                                   200
                                                                                                                                                                                                                                                                                       648
                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                588
                                                                                                                                                                                                                                                                                                                                                    160
                                                                                                                                                                                                                                                                                                                                                                                                                                                        462
                                                                                                                                                                                                                                                                                                                                                                         528
                                                                                                                                                                                                                                                                                                                                                                                                                 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     40
```

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                               RESULT 10
BC033670
LOCUS
                                                                                                                                                                                                                                                        SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                श
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                             VERSION
                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                           KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        321
                                                                                                                                                                                                                                                                                     Homo sapiens TBC1 domain family, member 3C, MGC:44903 IMAGE:5167394), complete cds. BC033670 BC033670.1 GI:45708750
Strausberg, R.I., Feingold, E.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Ugdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                    Hominidae; Homo.
                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                        Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAAGTTCTCAGTTCCCTCCAGGCTTC 1755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GluSerSerGlnPheProProGlyPhe 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys 380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LysHisLeuArgAlaSerMetLysLysLysLeuThrArgLysGlnGlyAspLeuProProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCAAACCCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCAACCCCCCA 1186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC 1128
                                                                                                                                                                              (bases 1 to 2575)
                                                                                                                                                                                                                                                                                                                                                           linear PRI 09-M
, mRNA (cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                 PRI 09-MAY-2005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JOURNAL
PUBMED
REFERENCE
AUTHORS
CONSRTM
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REMARK
       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CONSRTM
TITLE
                                                                                                                                                                                                                                                                                                                            gene
                                                                                                                                                                                                                                                          gg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Proc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NIH MGC Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (bases 1 to
```

```
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W., Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S., Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodrigues, A.C., Grimwood, J., Schmutz, J., Myers, R.D., Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E., Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A. Mammalian Gene Collection Program Team Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002) 12477922

22 (bases 1 to 2575)

23 (NIH MGC Project Direct Submitsed (02-JUL-2002) National Institutes of Health, Mammalian Gene Collection (MGC), Bethesda, MD 20892-2590, USA (NIH-MGC Project URL: http://mgc.nci.nih.gov

Tissue Procurement: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: National Institutes of Health Intramural Sequencing Center (NISC), Gaithersburg, Maryland; Web site: http://www.nisc.nih.gov/ Akhter, N. J., Granite, S., Guan, X., Gupta, J., Haghighi, P., Blakesley, R.W., Bouffard, G.G., Brenk, K., Brinkley, C., Brooks, S., Bietrich, N. L., Granite, S., Guan, X., Gupta, J., Haghighi, P., Maduro, Q.L., Masiello, C., Maskeri, B., Masirian, S.D., McCloskey, J.C., McDowell, J., Pearson, R., Stantripop, S., Thomas, P.J., Touchman, J.W., Touchman, J.W., Touchman, J.W., Touchman, J.W., J. Land, C., McCloskey, J.C., Maskeri, B., Masirian, S.D., McCloskey, J.C., McCloskey, J.C., Maskeri, B., Masirian, S.D., McCloskey, J.C., Mcaller, B., McCloskey, J.C., McCloskey, J.C., McCloskey, J.C., McC
```

Clone distribution: MGC clone distribution information can be founthrough the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 68 Row: i Column: 9
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 48949891 Location/Qualifiers
1.2575

/organism="Homo sapiens"
/bul_type="mrxNa"
/db_xref="taxon:966"
/clone="MGC:44903 IMAGE:5167394"
/clone="MGC:44903 IMAGE:5167394"
/clone="MGC:44903 IMAGE:5167394"
/clone="MGC:44903 IMAGE:5167394"
/clone="Super "Brain, adult medulla"
/clone="Super "NH MGC_119"
/lab_host="Vector: pCMV-SPORT6"
/note="Vector: pCMV-SPORT6"
/note="yector: pCMV-SPORT6"
1. .2575
/gene="TBC1D3C"
/note="synonym: MGC44903"
/db_xref="GeneID:414060"
78. .1208
/gene="TBC1D3C"
/codon_start=1
/product="TBC1 domain family member 3C"
/pcoduct="TBC1 domain family member 3C"
/protein_id="AAH33670.1"
/db_xref="GeneID:414060"
/protein_id="AAH33670.1"
/db_xref="GeneID:414060"
/translation="MDVVEVAGSWMAQEREDIIMKYEKGHRAGLPEDKGPKPFRSYNN
/translation="MDVVEVAGSWMAQEREDIIMKYEKGHRAGL

76 2	918 AGGGAGACCCTGGCTCAGGGACCTTCCTTGCCCTGCAGTGCCCTGCTTCCCCAGCCCGGG 9	276	Qy 261 GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAsp-Gly 276	Qy 241 HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys 260	CY 221 LEUGINGLYFREH18SETFCARRIGLYGITYTTVALGIRGLYFLEUGINARPGIRGIN 240	678 CTTCCTGAGGAGGATGCATTCTGGGCACTGCTGCAGCTGGCCAGTGAGAGGCACTCC 7	;DA1aPheTrDA1aLeuVa1G1nLeuLeuA1aSerG1uArgHisSe	181 AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr 20	Qy 161 AspargTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 180		438 ÄÄGTTGÄÄÄÄÄAČCČČGGÄÄGÄTÄČČÄÄÄTČÄTGÄÄÄGÄÄÄÄÄÄÄÄÄÄÄÄÄÄ	1 LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu	Qy 101 GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 120	Qy 81 MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100	Qy 61 ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp 80	198 AGCTACAACAACGATCGATTTGGGGATTGTACATGAGACGGAGCTGCCTC	41 SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu 60	138 AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTTAAGCCTTTTCGA 1	2] [V8TVrG]II[V8G]VHishroubistraliggississississississississississississi		-10-0/1-838-2 (1-549) x BC033670 (1-2575)	o Gaps:	ttch: 95.5% Indels:	2849.00 Matches: 5 milarity: 77.4% Conservative: 2 Cimilarity: 77.4% Victorian	nt Scores: 5.08e-90 Length:	
Qy 506 eAlaAlaProSerThrAspSerAspGlnGlyThrProPheArgAlaArgAspGluGlnPr 526	Db 1998 GGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAGCCGGTGAGATCGGCTTT 2057	Qy 486 uAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGluArgValArgSerAlaPh 506	Db 1938 CCCTTGGTTCCGCCATTATGATTCAGACAGAGCTGCTGGGTCCGTGCCATATCCCAGGA 1997	1878 CTGGAGATTCCTGCAGTGGAACTCCATGCCCCAACGGACCTGGACGTAGAGGG	Db 1818 CCTGTGGGCACTCAGGGTGTGCCCAGCCCTGGCTCAGGGAGGACGACCTCAGGGTTC 1877	Db 1758 GCCACGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCTGTCCGGGAAGACACCTA 1817 Qy 426 rProValGlyThrGlnGlyValProSerProAlaLeuAlaGlnGlyGlyProGlnGlySe 446	oProArgAlaProArgSerSerThrProCysProGlyGlyAlaValArgGluAspThrTy	Qy 386 pArgGlnAlaProProGlyProProAlaArgPheProArgProIleTrpSerAlaSerPr 406	1638 GTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAGACCCTCTGCAAGGGGGA	1578 TATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCAGCCAAACCCGAGCAAGG	346 rMetLysLeuThrArgLysGlnGlyAspLeuProProProAlaLysProGluGlnGl	Oy 326 nArgPheValAspThrTrpAlaArgAspGluAspThrValLeuLysHisLeuArgAlaSe 346	OY 306 SVALGINGLINYSARGLEUTHITYSTHISSERIGCYSGIYPFOTTPAIARIGPHECYSAS 326	1398 GGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATAACAAGAATCGCCTTTAA	1338 CCAGGTTCTTTCACACCTGCTGTCCCCACAGATCTCTCTC	Db 1278 ACTCTGGAGACTGAAGCCCCAGCGTGCGCAGCCTCGAGCCAGCC		Db 1218 AGACCTTGTCTGACCCAGCGTCCTGGAGGGCTCAGCCGACCCTCATGGGGAAGGTCACTG 1277	Qy 276 276	Db 1158 AGCCCCTCTCTCCAGGAGCCACATCCCCCACTCAAATGAGTGCCCCCCATGAGGAGCTTCA 1217	Qy 276 276	Db 1098 TGGGCAGACTGGGCCAGGACCCGACTTGAGAGGGCTCAGGGAAGCCCTCAAGCCCTGGGCA 1157	Qy 276 276	1038 AAACCCTCTGCCCAAGAGGGGTCATCCCAGGGCAATGGCTGGGGCTCAGGCCCAGCCTCA		Db 978 GGTCTGGCTCACTCCCAGCCCACAGGAGGCTCCAGGGGGGTCCCCCAAAGGACACAAGCA 1037

```
RESULT 11
AX775951
LOCUS
DEFINITION
ACCESSION
                                                                                                                       र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VERSION
KEYWORDS
                δ
                                                밁
                                                                         Ś
                                                                                                    밁
                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
밁
                                                                                                                                                                             S
                                                                                                                                                                                                                                  Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                         US-10-071-838-2 (1-549) x AX775951 (1-2647)
                                                                                                                                                                                                                                                                                                                 Alignment
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORGANISM
                                                                                                                                                                                                                                                                                                    No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  546
 935
                                                  875
                                                                                                     815
                                                                                                                                                        755
                       61
                                                                            41
                                                                                                                              21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AX775951
Sequence
AX775951
                                                                                                                                                                                μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NF-kB activating gene
Patent: WO 03048202-A 221 12-
Asahi Kasei Kabushiki Kaisha
Location/Qualifiers
1. 2647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matsuda, A. and Muramatsu, S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AX775951.1 GI:32693669
                                                               SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu
                                                                                                    LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg
                                                                                                                                                                     MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          oProGlyPhe 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTGGAAAGTTCTCAGTTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        oCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeuGluSerSerGlnPhePr
                ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCCAGGCTTC
                                                                                                                                                                                                                                                                                                                                                   /codon_start=1
/protein_id="CAE11675.1"
/db_xref="G1:3693670"
/db_xref="G1:3693670"
/translation="mdvvevagswwaqerediimkyekghragipedkgpkpfrsynn
/translation="mdvvevagswraperediimkyekgkssekiidraykgm
NVDHLGIVHETELPPLTAREAKQIRREISRKSKWVDMLGDWEKYKSSRKLIDRAYKGM
PMNIRGPM%SVLLNTEEMKLKUPGRYQIMKEKGKASSEHLQRIDEDVSGTLRKHIFFR
PRYGTKQRELLHLILAYEEYNPEVGYYCHDLSHIAALFFLYIPEEDAFWALVQLLASER
HSLQGFHSPNGGTVQGLQDQGEHVVATSQPKTMGHQISLGJTLRLWDVYLVEGEQALM
PITRIAFKVQQKRLTKTSRCGPWARFCNRFVDTWARDEDTVLKHLRASMKKLTRKQGD
LPPPAKPEQGSSASRVVBASRGGKTLCKGDRQAPGPPARFPRIMSASPRRAFRST
PCPGGAVREDTYPVGTQGVPSEPALAGGGEOGSNRFLDMSSMPRLFDLDVVEGPWFHHY
DFRQSCWVRAISQEDQLAPCWQAEHPAERVRSAFAAPSTDSDQGTPFRARDEQPCAPT
SGPCLCGLHLESSQFPPGF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
755__2338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="unnamed
                                                                                                                                                                                                                                     1.58e-89
2835.00
95.8%
95.8%
95.0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2647 bp r
from Patent WO03048202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12-JUN-2003;
sha (JP)
                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                    Gaps:
                                                  rGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                    2647
526
0
1
22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      546
 994
                        80
                                                  934
                                                                             60
                                                                                                       874
                                                                                                                              40
                                                                                                                                                         814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뭥
                            δ
                                                              밁
                                                                                 S
                                                                                                                  밁
                                                                                                                                     Ş
                                                                                                                                                                    밁
                                                                                                                                                                                       δ
                                                                                                                                                                                                               닭
                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                청 유
                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   日
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1055
                                                                                                                                                                     1769
                                                                                                                                                                                                                         1709
                                                                                                                                                                                                                                                                             1649
                                                                                                                                                                                                                                                                                                                               1589
                                                                                                                                                                                                                                                                                                                                                                                  1529
                                                                                                                                                                                                                                                                                                                                                                                                                                     1517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1115
                                                                                                                    1829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                           381
                                                                                                                                                                                               361
                                                                                                                                                                                                                                                 341
                                                                                                                                                                                                                                                                                                     321
                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                           281
                                                                                                                                                                                                                                                                                                                                                                                                                                                               261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     101
                                       421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyMetProMetAsmIleArgGlyProMetTrpSerValLeuLeuAsmIleGluGluMet 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HisvalvalAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100
                                                                 LysHisLeuArgAlaSerMetLysLysLeuThrArgLysGlnGlyAspLeuProProPro 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu
             ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln 440
                                                                                                                                  ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro
                                                                                                                                                                                      AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys
                                                                                                                                                                                                                                                                                           TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340
                                                                                                                                                                                                                                                                                                                                            ThrArgIleAlaPheLy8ValGlnGlnLy8ArgLeuThrLy8ThrSerArgCy8GlyPro
                                                                                                                                                                                                                                                                                                                                                                                                LeuThrLeuArgLeuTrpAspValTyrLeuValGluGlyGluGlnAlaLeuMetProIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AspArgTyrGlyThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                       GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                         AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                               ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                  CTCACCCTGCGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                      GCAAGGGGGACAGGCAGGCCCTCCAGGCCCACCAGCCCGGTTCCCGCGGCCC
                                                                                                                                                                                                                                                                                                                                                                                  GGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                       -ATCTCTCTCGGG
                                                                                                                                                                                                                                                                                                                                                          320
                                                                                                                                                                                                                                                                                                                                                                                    1588
                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                      1528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 140
                                                                                             420
                                                                                                                      1888
                                                                                                                                              400
                                                                                                                                                                         1828
                                                                                                                                                                                                380
                                                                                                                                                                                                                                                                               1708
                                                                                                                                                                                                                                                                                                                                  1648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1114
                2008
                                                                   1948
```

223 AAATACGAAAAGGGACACCGAGCTGGCTGCCAGAGGACCAAGGCCTTAAGCCTTTTCGA 41 SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu	.071-838- 1 163	Alignment Scores: Pred. No.: 2.36e-89 Length: Score: Score: Secore: Percent Similarity: 95.68 Best Local Similarity: 95.68 Query Match: Query Match: 10. 11. 12. 13. 14. 15. 16. 16. 17. 18. 18. 18. 18. 18. 18. 18	FEATURES Location/Qualifiers source 12072 /organism="unknown" /mol_type="genomic DNA"	REFERENCE 1 (bases 1 to 2072) AUTHORS Tang,Y.T., Goodrich,R.W., Asundi,V. and Drmanac,R.T. TITLE Cathepsin V-like polypeptides JOURNAL Patent: US 6783969-A 691 31-AUG-2004;	S . Unknown. ISM Unknown.	AR578515 LOCUS AR578515 2072 bp DNA linear PAT 14-DEC-2004 DEFINITION Sequence 691 from patent US 6783969. ACCESSION AR578515 (3:56581311)	Qy 541 GluSerSerGlnPheProGlyPhe 549	521 2249		Qy 481 ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu 500	Qy 461 AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal 480	Qy 441 GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr 460
B & B & B & B	Q	Q B Q B	i ठ à ठ	D Qy	В Q	D Q	, 19 B	<i>8</i> B	Q D	Оу	Q B	Qy Db
1237 ACCTYCTGCAAGGGGACAGCCAGGCCCATCCAGGCCCAGTTCCCGCCCCCAACG 401 IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla 420	1117 AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAGCAGGGGACCTGCAACCCCCA 1176 361 AlaLysProGluGlnGlySerSerlasSerArgProValProAlaSerArgGlyGlyLys 380	997 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG 1056 321 TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340	LeuTh-LeuArgleuTrpAspValTy-LeuValGluGlyGluGlnAla-LeuWetProlle 300	GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly	241 HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys 260 	21 LeuglnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuglnAspGlnGlnGl 	AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer	643 GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 702 181 AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr 200	583 CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATAT	523 AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAAGGGCAAGGGTCATCTGGAG 582 141 HislleGlnArglleAspArgAspValSerGlyThrLeuArgAshisllePhePheArg 160	463 GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG 522 121 LysLeuLysAsnFroGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu 140	403 ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAAGCTCATAGATCGAGCGTACAAG 462 101 GlyMetProMetAsnileArgGlyProMetTrpSerValLeuLeuAsnileGluGluMet 120

Match: 94.8* Indels: 6 Gaps: 071-838-2 (1-549) x AX775949 (1-2647) 1 MetAspValValGluValAlaGlySerTrpTrpAlaGlnC	ores: 2.99e-89 2827.00 larity: 95.6% imilarity: 95.6%	DFROSCWVRAISQEDDLAPCWQAEHPAERVRSAFAAPSTDSDQGTFFRAKDEQFCAPT SGPCLCGLHLESSQFPPGF" ORIGIN	PITRI A FKVQQKRLIYETSKCGPWAR FCURFVDTWARDBDTVLKHLRABWAY I U BGBQKHLIY PITRI A FKVQQKRLIYETSKCGPWAR FCURFVDTWARDBDTVLKHLRABWKKLIYEKQGD LQPPAKKPEQGSSASR FVPASRGGKTLCKGDRQAPFGPBPITWSASPPRAFRSST PCPGGAVREDTYPVGTQGVPSPALAQGGPQGSWR FLQWNSMPRLPTDLDVEGFWFRHY	V. LELIE I BLEUTE FROM Y SOM FRANCISCO DE LENG EN DE LENG EN CONTROLE BOUGHT EN CONTROLE	/ NOCES "UILIAMED PIOCELLI PIOCUCC" /COCON_ BIRATE-1 /proteIn_id="CAE11674.1" /db_xref="G1:3269366x1" /tb_xref="G1:326936x1" /tb_xref="G1:326936x1"		Agahi Kagei Kabushiki Location/Qual 2647	REFERENCE 1 AUTHORS Matsuda, A. and Muramatsu, S. TITLE NF kB activating gene TOIRNAL Patent: WO 0.1048/200-A 219 12-TIN-2003:	SOURCE Homo Baptens (numan) ORGANISM Homo Baptens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae. Homo	IION Sequence 219 ION AX775949 ION AX775949.1 G DS	AX775949	Qy 541 GluSerSerGlnPheProProGlyPhe 549	Qy 521 AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu 540	Qy 501 ArgValArgSerAlaPheAlaAlaProSerThrAepSerAepGlnGlyThrProPheArg 520	Qy 481 ArgalaileSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu 500	Qy 461 AspleuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal 480
D 9 9	Qy Db	B 8	Q dd	B 8	₽ <i>Q</i>	B 8	р Q	D Q	p &	ρ <i>Q</i>	B &	B 8	₽ <i>&</i>	B 8	p &	QY db
341 LYBHISLEUATGALASEMECLYBLYBLEUINTATGLYBCINGLYMBULGUETOFFOF TO SOCIET LYBHISLEUATGALASEMECLYBLYBLYBLEUITTATGLYBCINGLYMBULGUETOFFOF TO SOCIET LITTLE AND AGCATCTTAGGGCCTCTATGANGAAACTAACAAGAAAGCAGGGGGACCTGCAACCCCCA 1768 361 AlalysprogluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyLys 380 361 AlalysprogluGlnGlySerSerAlaSerArgFroValProAlaSerArgGlyGlyLys 380	TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340	301 ThrArgIleAlaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro 320 	281 LeuThrLeuArgLeuTrpAspYalTyrLeuValGluGlyGluGlnAlaLeuMetProIle 300	261 GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerLeuGly 280	241 HisValValAlaThrSerGlnProLysThrMetGlyHisGlnAspLysLysAspLeuCys 260	221 LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu 240	201 LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer 220	181 AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr 200 	161 ABPARGTYKGIYTHKLYSGINAKGGIULEULEUHİSIIELEULEUAlATYKGIUGIUTYK 180 	141 HislleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisllePhePheArg 160 	121 LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu 140 	101 GlyMetDroMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet 120	81 MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100 	61 ThralaargGlualaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp 80 	41 SerTyråsnasnasnvalasphisLeuGlyIleValhisGluThrGluLeuProProLeu 60 	21 LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg 40

2 111	် လ	Yamamoto,J.I., Isono,Y., Hio,Y., Otsuka,K., Nagai,K., Irie,R., Tamechika,I., Seki,N., Yoshikawa,T., Otsuka,M., Nagahari,K. and Masuho,Y. TITLE Full-length cDNA sequences JOURNAL Patent: EP 1347046-A 676 24-SEP-2003; Research Association for Biotechnology (JP) FEATURES Location/Oualifiers	NISM Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi Mammalla; Butheria; Euarchontoglires; Primates; Catarrhini; Hominidae; Homo. NCE 1 ORS Isogai,T., Sugiyama,T., Otsuki,T., Wakamatsu.A., Sato,H., Ishii.	AX83 Sequ AX83 AX83	Qy 541 GluSerSerGlnPheProProGlyPhe 549	Qy 521 AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu 5	Qy 501 ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg 5	Qy 481 ArgAlaIleSerGlnGluAspGlnLeuAlaProCysTrpGlnAlaGluHisProAlaGlu 5	Qy 461 AspLeuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal 4	Qy 441 GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr 4	Qy 421 ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln 4	Qy 401 IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla 4	Qy 381 ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro 4
			to	003		540 2308	520 2248	500 2188	480 2128	460 2068	40	420 1948	
8 8 8 8	D	S B S B	Q	DD 07 DD 07	D	D Qy	Qy Qy	AS GG	D Q	AS 4d	δ δ	S dd	Qy Db
321 TrpAlaArgPheCysAsnArgPheValAspThrTrpAlaArgAspGluAspThrValLeu 340	1529 CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAACGGCGAACAGGCGTTGATGCCGATA 1588 301 ThrArgIlealaPheLysValGlnGlnLysArgLeuThrLysThrSerArgCysGlyPro 320	pGlyIleSerLeuGly	221 LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGlu 240	181 AsnProGluValGlyTyrCysArgAspLeuSerHisIleAlaAlaLeuPheLeuLeuTyr 200	161 ABPARGTYYGIYThrLysGlnArgGluLeuLeuHisIleLeuLeuAlaTyrGluGluTyr 180 	141 HisIleGlnArgIleAspArgAspValSerGlyThrLeuArgLysHisIlePhePheArg 160 	121 LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSerGlu 140 	101 GlyMetProMetAsnileArgGlyProMetTrpSerValLeuLeuAsnileGluGluMet 120 	81 MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys 100 	61 ThralaargGluAlaLy8GlnIleArgArgGluIleSerArgLy8SerLy8TrpValAsp 80 	41 SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu 60 	21 LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg 40 	1 MetaspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet 20

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 15
AK095385
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
Ota, T., Suzuki, Y., Nishikawa, T., Otsuki, T., Sugiyama, T., Irie, R., Wakamatsu, A., Hayashi, K., Sato, H., Nagai, K., Kimura, K., Makita, H., Sekine, M., Obayashi, M., Nishi, T., Shibahara, T., Tanaka, T., Ishii, S., Yamamoto, J., Saito, K., Kawai, Y., Isono, Y., Nakamura, Y., Nagahari, K., Murakami, K., Yasuda, T., Iwayanagi, T., Wagatsuma, M., Shiratori, A., Sudo, H., Hosoiri, T., Kaku, Y., Kodaira, H., Kondo, H., Sugawara, M., Takahashi, M., Kanda, K., Yokoi, T., Furuya, T., Kikkawa, E., Omura, Y., Abe, K., Kamihara, K., Katsuta, N., Sato, K., Kikkawa, E., Omura, Y., Abe, K., Kamihara, K., Katsuta, N., Sato, K., Kikkawa, K., Fujimori, K., Tanai, H., Kimata, M., Watanabe, M., Murakawa, K., Fujimori, K., Tanai, H., Kimata, M., Watanabe, S., Yosida, M., Hotuta, T., Kusano, J., Kanehori, K., Takahashi-Fujii, A., Hara, R., Takae, S., (Tiba, Y., Ishida, S., Ono, Y., Takiguchi, S., Watanabe, S., Yosikawa, Y., Matsunawa, H., Ichihara, T., Sasaki, N., Aotsuka, S., Yoshikawa, Y., Matsunawa, H., Ichihara, T., Sasaki, N., Aotsuka, S., Yoshikawa, Y., Matsunawa, H., Ichihara, T., Shiohata, N., Sano, S., Moriya, S., Momiyama, H., Satoh, N., Takami, S., Togiya, S., Watanabe, T., Wakabe, H., Hishigaki, H., Watanabe, T., Wakabe, H., Hishigaki, H., Watanabe, T., Wakabe, H., Hishigaki, H., Watanabe, T., Kusano, J., Fukuzumi, Y., Fujimori, Y., Komiyama, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AK095385.1 GI:21754631 oligo capping; fis (full insert sequence)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AK095385 2647 bp mRNA linear Homo sapiens cDNA FLJ38066 fis, clone CTONG2015330, similar to H.sapiens mRNA for tre oncogene.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                             Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAAGTTCTCAGTTCCCTCCAGGCTTC 2335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GluSerSerGlnPheProProGlyPhe 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG 2308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AlaArgAspGluGlnProCysAlaProThrSerGlyProCysLeuCysGlyLeuHisLeu 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ArgValArgSerAlaPheAlaAlaProSerThrAspSerAspGlnGlyThrProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyGlyProGlnGlySerTrpArgPheLeuGlnTrpAsnSerMetProArgLeuProThr 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ValArgGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGln 440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IleTrpSerAlaSerProProArgAlaProArgSerSerThrProCysProGlyGlyAla 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCGGGGCCC 1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrLeuCysLysGlyAspArgGlnAlaProProGlyProProAlaArgPheProArgPro 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AspleuAspValGluGlyProTrpPheArgHisTyrAspPheArgGlnSerCysTrpVal 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTCCGGGAAGACCCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRI 30-JAN-2004 moderately
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
PUBMED
REFERENCE
AUTHORS
                                                                     밁
                                                                                                         Ş
                                                                                                                                                      밁
                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                             Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            source
                                                                       875
                                 61
                                                                                                              41
                                                                                                                                                                                            21
                                                                                                                                                                                                                                                                            -
```

```
Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-071-838-2 (1-549) x AK095385
                                                                                                                                                                                                                                      815 AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                   755 ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Direct Submission

Submitted (04-JUL-2002) Takao Isogai, FLJ Project (HRI Team); 2-6-7

Kazusa-Kamatari, Kisarazu, Chiba 292-0812, Japan

(B-mail:genomics@hri.co.jp, Tel:81-438-52-3975, Fax:81-438-52-3986)

REDO human cDNA sequencing project supported by Ministry of Economy, Trade and Industry of Japan; CNAA full insert sequencing: Research Association for Biotechnology; (RAB); cDNA library construction: Helix Research Institute (HRI) (supported by Japan Key Technology Center etc.); 5'- & 3'-end one pass sequencing: RAB, HRI, and Biotechnology Center, National Institute of Technology and Evaluation; clone selection for full insert sequencing: HRI and RAB, annotation: HRI and RAB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ozaki, K., Hirao, M., Ohmori, Y., Kawabata, A., Hikiji, T., Kobatake, N. Inagaki, H., Ikema, Y., Okamoto, S., Okitani, R., Kawakami, T., Noguchi, S., Itoh, T., Shigeta, K., Senba, T., Matsumura, K., Nakajima, Y., Mizuno, T., Morinaga, M., Sasaki, M., Togashi, T., Oyama, M., Hata, H., Watanabe, M., Komatsu, T., Mizushima-Sugano, J., Satoh, T., Shirai, Y., Takahashi, Y., Nakagawa, K., Okumura, K., Nagase, T., Nomura, N., Kinchi, H., Masuho, Y., Yamashita, R., Nakai, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T. and Sugano, S., Complete sequencing and characterization of 21,243 full-length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Tanigami, A., Fujiwara, T., Shibahara, T., Goto, Y., Hirao, M., Shimizu, F., Wakebe, H., Ono, T., Hishigaki, H., Matanabe, T., Ozaki, K., Sugiyama, T., Irie, R., Otsuki, T., Sato, H., Wakamatsu, A., Ishii, S., Yamamoto, J., Isono, Y., Kawai-Hio, Y., Salto, K., Nishikawa, T., Yamashita, H., Matsuo, K., Nakamura, Y., Sekine, M., Kimura, K., Yamashita, H., Matsuo, K., Nakamura, Y., Sekine, M., Kikuchi, H., Kanda, K., Wagatsuma, M., Murakawa, K., Kanehori, K., Takahashi-Fujii, A., Oshima, A., Sugiyama, A., Kawakami, B., Suzuki, Y., Sugano, S., Nagahari, K., Masuho, Y., Nagai, K. and Isogai, T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 (bases 1 to 2647)
Isogai, T. and Yamamoto, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14702039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human cDNAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tashiro, H.,
                                                                                                                                              SerTyrAsnAsnAsnValAspHisLeuGlyIleValHisGluThrGluLeuProProLeu 60
                                                                                                                                                                                                                                                                    LysTyrGluLysGlyHisArgAlaGlyLeuProGluAspLysGlyProLysProPheArg 40
                                                                                                                                                                                                                                                                                                                                                                                                     MetAspValValGluValAlaGlySerTrpTrpAlaGlnGluArgGluAspIleIleMet 20
ThrAlaArgGluAlaLysGlnIleArgArgGluIleSerArgLysSerLysTrpValAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genet. 36 (1), 40-45 (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /tissue_type="tongue, tumor tissue"
/clone_Tib="CTONG2"
/note="cloning vector: pME18SFL3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CTONG2015330"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2.99e-89
2827.00
95.6%
95.6%
94.8%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tanigami, A., Fujiwara, T., Ono, T.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (1-2647)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2647
525
0
2
2
2
2
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Yamada,K., Fujii,Y.,
ikiji,T., Kobatake,N.,
                                            80
                                                                                                            934
                                                                                                                                                                                                                                         874
                                                                                                                                                                                                                                                                                                                                                                       814
```

8008	1949 GTCCGGGAAGACCCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
	21 ValargGluAspThrTyrProValGlyThrGlnGlyValProSerProAlaLeuAlaGl
် စေ ဝ	81 ThrLeucysLysGlyAspArgGlnAlaBroProGlyProProAlaArgPheProArgPro
8 8	61 AlaLysProGluGlnGlySerSerAlaSerArgProValProAlaSerArgGlyGlyL
360 L768	ASerMetLysLysLeuThrArgLysC TCTATGAAGAAACTAACAAGAAAGC
340 L708	21 TrpAlaArgPheCyeAsnArgPheValAspThrTrpA
320 1648	GlnGlnLysArgLeuThrLys
300	1 LeuThrLeu 29 CTCACCCTG
1528	61 GlyGlnCysSerProLeuGlyCysLeuIleArgIleLeuIleAspGlyIleSerL 17ATCTCTC
1516	41 HisValValAl 75 CATGTGGTAGC
240 1474	1 LeuGlnGlyPheHisSerProAsnGlyGlyThrValGlnGlyLeuGlnAspGlnGlnGln
220 1414	01 LeuProGluGluAspAlaPheTrpAlaLeuValGlnLeuLeuAlaSerGluArgHisSer
200 1354	81 AsnProGluValGly1 95 AACCCGGAGGTGGGCT
180 1294	61 Asp 35 GAT
NO	41 HisileGlnArgileA 75 CACATCCAGCGCATCC
140 1174	21 LysLeuLysAsnProGlyArgTyrGlnIleMetLysGluLysGlyLysArgSerSer
120 1114	01 GlyMetProMetAsnIleArgGlyProMetTrpSerValLeuLeuAsnIleGluGluMet
100	81 MetLeuGlyAspTrpGluLysTyrLysSerSerArgLysLeuIleAspArgAlaTyrLys
994	5 ACTGCGCGGGAGGCGAAGCAAATTCGGCGGGAGATCAGCCGAAAGAGCAAGTGGGTGG

8 8 8 8 8 8

밁 ঠ 중 음 중

밁

This Page Blank (uspto)

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OM nucleic - nucleic search, using sw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
        and is derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No.
       DB DB
                                                                                                                                                                                                                                                                                                                                                                                                                 Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             length: 0 length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                               Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1:
2:
4:
3:
5:
4:
10:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 is the number of results predicted by chance to have a ater than or equal to the score of the result being printed, rived by analysis of the total score distribution.
       IDENTITY NUC Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-071-838-1
1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9793542 seqs, 4134689005 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        April 5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Published_Applications_NA_Main: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US09A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10D_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
/cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    atggacgtggtagaggtcgc....aaatgtttcctgttgaaatg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               þу
                                                                                                                                                                                                                                                                                                                                                                                                               Length
     1993
20072
20072
2047
2072
2146
11562
11562
17856
7856
7878
8180
8180
8201
8201
8201
8201
8200
9804
9804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2006, 14:01:23 ; Search time 1619 Seconds
(without alignments)
10031.537 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                 DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd
   US-10-071-838-1
US-10-839-882-31
US-10-302-172-692
US-10-302-172-691
US-10-108-260A-676
US-10-071-838-5
US-10-071-838-5
US-10-450-763-21335
US-10-450-763-21335
US-10-450-763-21335
US-10-843-641X-3021
US-10-265-157-1259
US-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19587084
Sequence 1, Appli
Sequence 31, Appl
Sequence 692, App
Sequence 61, Appli
Sequence 3, Appli
Sequence 51, Appli
Sequence 21335, A
Sequence 24017, A
Sequence 3021, Appl
Sequence 272, App
Sequence 272, App
Sequence 273, App
Sequence 273, App
Sequence 21339, App
Sequence 21339, App
Sequence 21339, App
Sequence 21339, App
Sequence 51, Appl
Sequence 51, Appl
Sequence 1829, App
Sequence 1829, App
Sequence 7861, App
Sequence 7861, App
                                                                                                                                                                                                                                                                                                                                                                                                              Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1, Application US/10071838

Publication No. US20030044814A1

GENERAL INFORMATION:

APPLICANT: Li, Jing
APPLICANT: Ying Septiment Stang, Phil
APPLICANT: Ying Septiment Stang, Phil
APPLICANT: Tularik Inc.

TITLE OF INVENTION: PRC17: Jan Amplified Can
FILE REFERENCE: 018781-00-0710US
CURRENT APPLICATION NUMBER: US/10/071,838
CURRENT APPLICATION NUMBER: US/071,838
CURRENT FILING DATE: 2001-02-08

NUMBER-OF SEG ID NOS: 18
SOPTWARE: PatentIn Ver. 2.1

SEG ID NO. 1
   δ
                              멼
                                                               S
                                                                                                    밁
                                                                                                                             ঠ
                                                                                                                                                                        밁
                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 1
US-10-071-838-1
                                                                                                                                                                                                                                                                                                            US-10-071-838-1
                                                                                                                                                                                                                                     Query Match
Best Local Simi
Matches 1964;
                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 1964
TYPE: DNA
ORGANISM: Homo sapiens
PEATURE:
OTHER INFORMATION: human P
                                                                                                                                                                                                                                                                                                                     FEATURE:
NAME/KEY: CDS
LOCATION: (1)..(1650)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 882 . 8
879 . 6
879 . 6
879 . 6
879 . 6
878 . 8
878 . 8
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 4
876 . 6
876 . 6
876 . 6
876 . 6
876 . 6
876 . 6
876 . 6
876 . 6
876 . 
     181
                                   121
                                                                   121
                                                                                                    61
                                                                                                                                      61
                                                                                                                                                                         ...
                                                                                                                                                                                                       _
                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                      ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGACAGAGGACATCATTATG
                                                                                                    AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                          AAATACGAAAAGGGACACCGAGCTGGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTTCGA
   AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                        AGCTACAACAACAACGTCGATCATTTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                       100.0%; S ilarity 100.0%; P Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRC17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      An Amplified Cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-227-577-1829
US-09-764-869-1826
US-09-764-891-7859
US-10-091-504-1826
US-10-227-577-1832
US-10-091-504-1832
US-10-091-504-1831
US-10-227-577-1831
US-10-091-504-1831
US-10-091-504-1831
US-10-091-504-1821
US-10-091-504-1821
US-10-091-504-1824
US-09-764-869-1824
US-09-764-869-1824
US-09-764-869-1824
US-09-764-869-1824
US-09-764-869-1828
US-09-764-891-7858
                                                                                                                                                                                                                                     Score 1964;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALIGNMENTS
                                                                                                                                                                                                                                                                           BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gene
                                                                                                                                                                                                                                       ٥.
                                                                                                                                                                                                                                                                         ت
--
                                                                                                                                                                                                                                                                       Length 1964;
                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1824,
1824,
1825,
7858,
1825,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              120
     240
                                   180
                                                                    180
                                                                                                    120
                                                                                                                                                                      60
                                                                                                                                                                                                       60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
```

```
1201
                                                                                    1201
                                                                                                                   1141
                                                                                                                                                                                 1081
                          1261
                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                         961
                                                                                                                                                                                                                                                                                                                                        961
                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            721
        GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                         ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                   ACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCAGCAGCCCGGTTCCCGGGGCCC
                                                                                                                                                                                                   GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGAAG
                                                                                                                                                                                                                                                                                                                           TGGGCACGTTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                        ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGGCT
                                                                                                                     AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                     ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                    ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                           TTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                    1260
                                                                                                                                                                                                                1140
                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                     1200
                                                                                                                                                  1200
                                                                                                                                                                                 1140
                                                                                                                                                                                                                                                1080
                                                                                                                                                                                                                                                                                                           1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               240
Sequence 31, Application US/10839882

Publication No. US20040203106A1

GENERAL INCOMPATION:

APPLICANT: TANG, Y. Tom
APPLICANT: TANG, Y. Tom
APPLICANT: HILLMAN, Jennifer L.
APPLICANT: CORLEY, Neil C.
APPLICANT: LAL, Freeti
APPLICANT: BAUGHN, Mariah R.
APPLICANT: SAUGHN, Mariah R.
APPLICANT: SHIH, Leo L.
TITLE OF INVENTION: PROLIFERATION AND APOPTOSIS RELATED PROTEINS
FILE REFERENCE: PP-0619 PCT
CURRENT APPLICATION NUMBER: US/10/839,882

CURRENT APPLICATION NUMBER: US/09/807,452

PRIOR APPLICATION NUMBER: US/09/807,452

PRIOR APPLICATION NUMBER: 09/175,737; unassigned; 60/118,559; 09/249,740; unassigned
60/154,336

PRIOR FILING DATE: 1998-10-20; 1998-02-04; 1999-04-11; 1999-04-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                  RESULT 2
US-10-839-882-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCGTTCTGAATTCTGACGACACCGTGAGCCTTGCTTTGTACTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGTTCAGAGATGGAACACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAPAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1380
```

S

밁 δ 밁 Ś 밁 ঠ 밁 8 밁 Ş 밁 ঠ 밁 र् 밁 S 문 Ś 밁 ঠ 밁 ક 밁 S 밁 ક 밁 8 밁 δ 밁 5 밁

중 유

```
; NUMBER OF SEQ ID NOS: 44
; SOPTWARE: PERL Program
; SEQ ID NO 31
; LENGTH: 1993
; TYPE: DNA
; ORGANISM: Homo sapiens
; PEATURE:
; NAME/KEY: misc feature
; OTHER INFORMATION: Incyte II
US-10-839-882-31
        원
                                र्
                                            음 성
                                                                       음 성 음 성
                                                                                                                             음 성 음
                                                                                                                                                                    5
                                                                                                                                                                                      문
                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                · 8 문
                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                   음 성
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 1945; Conserv
         841
                                                                                                      642
                                                                                                                                                            522
                                                                                                                                                                                                                 402
                                                762
                                                           721
                                                                           702
                                                                                                                                              541
                                                                                                                                                                         481
                                                                                                                                                                                       462
                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                            342
                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                         102
                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                    42
                                                                                                                                                                                                                                                                                                                                                                                                 بر
                                              CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                               AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                     CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                  ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                          GATCGATACGGAACCAAGCAGCAGCGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                 AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTG
                    GATCGATACGGAACCAAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                 AAGTTGAAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                           GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                       ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                        AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                   98.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                IJ
                                                                                                                                                                                                                                                                                                                                                                                                             Score 1929.8;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                               No:
                                                                                                                                                                                                                                                                                                                                                                                                                                                4325626CB1
                                                                                                                                                                                                                                                                                                                                                                                                                           DB
                                                                                                                                                                                                                                                                                                                                                                                                              7;
                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                           Length
        900
                     881
                                                            780
                                                                          761
                                                                                       720
                                                                                                     701
                                                                                                                   660
                                                                                                                                641
                                                                                                                                             600
                                                                                                                                                          581
                                                                                                                                                                        540
                                                                                                                                                                                      521
                                                                                                                                                                                                   480
                                                                                                                                                                                                                 463
                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                            401
                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                       341
                                                                                                                                                                                                                                                                                                                                                        161
                                                                                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                                                   101
                                                                                                                                                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                            221
                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                 60
 밁
         5
                          유정
                                                B
                                                               S
                                                                               밁
                                                                                         ঠ
                                                                                                        밁
                                                                                                                      8
                                                                                                                                   음 성
                                                                                                                                                                밁
                                                                                                                                                                            8
                                                                                                                                                                                           밁
                                                                                                                                                                                                     δ
                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                   Вb
                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                 음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                     1841
                                                                                             1741
                                                                                                                                                                                                                       1482
                                                                                                                                                                                                                                                                                          1321
 1961
             1921
                                                                                 1781
                                                                                                                         1681
                                                                                                                                      1662
                                                                                                                                                    1621
                                                                                                                                                                 1602
                                                                                                                                                                                            1542
                                                                                                                                                                                                        1501
                                                                                                                                                                                                                                                  1422
                                                                                                                                                                                                                                                                1381
                                                                                                                                                                                                                                                                             1362
                                                                                                                                                                                                                                                                                                        1302
                                                                                                                                                                                                                                                                                                                      1261
                                                                                                                                                                                                                                                                                                                                                                            1141
                                                                                                                                                                                                                                                                                                                                                                                         1122
                                                                                                                                                                                                                                                                                                                                   1242
                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                     1062
                                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                                                                                                                                                               1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                            196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     882
                                                                                                                                      GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                GCTAGGGACGAACAGCCGTGTGCTCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                           CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                 ATAACTACCTTCACGTTTTGAAATAAATGTTTC
                                  CATCGTTCTGAATTCTGACGACACCGTGAGGCCTGCCTTTGTACTTTAAACTCATGGAAGG
                                                     CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                             GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                  GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                   AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                       GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                         1920
                                                                   1860
                                                                                 1840
                                                                                              1800
                                                                                                                        1740
                                                                                                                                                   1680
                                                                                                                                                                               1620
                                                                                                                                                                                             1601
                                                                                                                                                                                                          1560
                                                                                                                                                                                                                                     1500
                                                                                                                                                                                                                                                  1481
                                                                                                                                                                                                                                                                                                                                                                            1200
                                                     1900
                                                                                                                                                                 1661
                                                                                                                                                                                                                       1541
                                                                                                                                                                                                                                                               1440
                                                                                                                                                                                                                                                                             1421
                                                                                                                                                                                                                                                                                                       1361
                                                                                                                                                                                                                                                                                                                                   1301
                                                                                                                                                                                                                                                                                                                                                1260
                                                                                                                                                                                                                                                                                                                                                                                         1181
                                                                                                                                                                                                                                                                                                                                                                                                      1140
                                                                                                                                                                                                                                                                                                                                                                                                                    1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1001
                                                                                                                                                                                                                                                                                          1380
                                                                                                                                                                                                                                                                                                                                                              1241
```

```
GENERAL INCOMPATION:

APPLICANT: Tang, Y. Tom
APPLICANT: Xue, Aidong J.
APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. US20040053250A1el Arginine-rich Protein-like Nucleic Acids an TITLE OF INVENTION: No. Depophides
FILE REPERENCE: 803 1CNCP
CURRENT APPLICATION NUMBER: US/10/302,172
CURRENT FILING DATE: 2002-11-21
PRIOR APPLICATION NUMBER: US 10/225,251
PRIOR RILING DATE: 2002-08-05
PRIOR FILING DATE: 2002-03-05
PRIOR PILING DATE: 2002-03-05
PRIOR APPLICATION NUMBER: US 09/799,451
PRIOR FILING DATE: 2001-03-05
NUMBER OF SEQ ID NOS: 950
SOFTWARE: pt_FL_genes Version 2.0
SEQ ID NO 692
LENGTH: 2084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; TYPE: DNA; ORGANISM: Homo sapiens; FEATURE: ; FEATURE: ; NAME/KEY: CDS; LOCATION: (163)..(1755) US-10-302-172-692
δ
                      밁
                                             Ś
                                                                           밁
                                                                                                8
                                                                                                                              뭐
                                                                                                                                                 S
                                                                                                                                                                              В
                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 3
US-10-302-172-692
; Sequence 692, Application US/10302172
; Publication No. US20040053250A1
                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 1904;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Y Match 93.5%;
Local Similarity 96.9%;
                         589
                                                481
                                                                            530
 541
                                                                                                    421
                                                                                                                               523
                                                                                                                                                       361
                                                                                                                                                                               463
                                                                                                                                                                                                         301
                                                                                                                                                                                                                                 403
                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                    343
                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                      283
                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                         223
                                                                                                                                                                                                                                                                                                                                                                                                                                            163
                                                                                                                                                                                                                                                                                                                                                                                                                13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                            AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG 180
                                                                                                                                                                                                                                                                                                                                                                                         AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                             AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTTAAGCCTTTTCGA
 AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                      GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 540
                                                                                                                                                      AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                 GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                                                GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                    ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 1836.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                  120
                                                                                                                                                                                                                                                                                                                                                                                                                                             222
                                                                             588
                                                                                                                                                       420
                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                          282
  600
                                                                                                                                                                                                                                    462
                                                                                                                                                                                                                                                                                      402
                                     밁
                                                         ঠ
                                                                                        밁
                                                                                                            δ
                                                                                                                                      밁
                                                                                                                                                               Ş
                                                                                                                                                                                             밁
                                                                                                                                                                                                                S
                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                 뫄
                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뭥
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                           1549
                                                                                                                                                                      1441
                                                                                                                                                                                                                                                                                                   1369
                                                                                                                                                                                                                                                                                                                           1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        769
GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                       GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCCTCTGCGGCCTCCACTTG
                                                                                        CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                          CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGAG
                                                                                                                                                                                                            GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                  GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                     ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                        ATTTGGTCAGCTTCCCCGCCACGGGGACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                      ACCCTCTGCAAGGGGACAGGCACCCTCCAGGCCCACCAGCCCGGTTCCCGCGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCGCGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAAGAATCGCCTTTAAGGTTCAGCAGAAGAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGAATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGAATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCAGGGATTTCACAGCCCAAATGGCGGGGACCGTCCAGGGGGTTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                   GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCAACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                           CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                    1560
                                                                                                                                                                                                                                                   1488
                                                                                                                                                                                                                                                                                                                             1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                            1668
                                                                                                                                              1608
                                                                                                                                                                      1500
                                                                                                                                                                                                1548
                                                                                                                                                                                                                         1440
                                                                                                                                                                                                                                                                           1380
                                                                                                                                                                                                                                                                                                      1428
                                                                                                                                                                                                                                                                                                                                                      1368
                                                                                                                                                                                                                                                                                                                                                                                1260
                                                                                                                                                                                                                                                                                                                                                                                                         1308
                                                                                                                                                                                                                                                                                                                                                                                                                                 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                 1680
                                          1728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             708
```

	181 ACTGCGCGGGAGGCGAAGCAAATTCGGCGGGAGATCAGCCGAAAGAGCGAGTGGGTGG	121 AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG 180	61 AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTTAAGCCTTTTCGA 120 	1 ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGAGA	Query Match 92.3%; Score 1812.4; DB 7; Length 2072; Best Local Similarity 96.3%; Pred. No. 0; Matches 1892; Conservative 0; Mismatches 6; Indels 66; Gaps 1;	PRATURE: NAME/KEY: CDS LOCATION: (163)(1743) LO-302-172-691	207; PA FR	PRIOR APPLICATION NUMBER: US 09/799,451 PRIOR FILING DATE: 2001-03-05 NUMBER OF SEQ ID NOS: 950 SOFTWARE: pt_FL_genes Version 2.0	PRIOR APPLICATION NUMBER: US 10/225,251 PRIOR FILING DATE: 2002-08-20 PRIOR APPLICATION NUMBER: PCT US02/05095 PRIOR FILING DATE: 2002-03-05	TITLE OF INVENTION: Polypeptides FILE REFERENCE: 803_1CNCP TURRENT APPLICATION NUMBER: US/10/302,172 TURRENT FILING DATE: 2002-11-21	RPPLICANT: Tang, Y. Tom APPLICANT: Xue, Aidong J. APPLICANT: Drmanac, Radoje T. RITLE OF INVENTION: No. US20040053250Alel Arginine-rich Protein-like Nucleic Acids an	US-10-302-172-691 ; Sequence 691, Application US/10302172 ; Publication No. US20040053250A1 ; GENERAL INFORMATION:	2029 ATAACCACCTTCATGTTTTGAAATAAATGTTTCCTGTTGAAATG 2072 TLT 4	ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG 1964	1861 CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCAIGGAAGG 1920 		1849 CTTATGAĀĀĀTGTĀTTĀĀGĀĀĀGĀĞĀGTĠCĀĞCTĊCĀĞĀĞĀĞĀTTĊĀĞĀĞĀTGĞĀĀCĀĊĀĊĆ 1908 1801 AGĀCCCCĀGĀTCĀCĀĀĀĀGCCĀĀCCĀTGCCCĀĢGCCCCTCCCĀĢGCĀCCCCCĀGCCCCĀCGĀC	CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGA	1789 AATTTCCCTAGGCTTAACAACCCAAGCATGCTTGCCATCCTCGTTTTATTTTTGGTTAAA 1848
9	Db	S B :	δ B :	S B 8	S B 8	B &	Qy Db	<u> </u>	<u> </u>	B 8	Qy Db	DB Qy	D Q	B 4	S B	φ, ,	B &	Db	Q 5
1321 GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG 138	1357 GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG 1416				117	TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC	901 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGAGCGTCCAGGTGTGGCCCG 960	CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA 9	781 GGGCAGTGTTCCCCGTTAGGCTGCCTCATCCGGATATTGATTG		661 CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACACAGGAG 720	CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC	541 AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT 600	643 GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 702	583 CÁCATCCAGCCCCATCCACCCGCACCGCGACATTAAGGAAGCATATATTCTTCAGG 642 481 GATCGATACGGAACCAGCACCTGGAACTTACTCCACATCTTCTTCGCATATATGACGAGTATT	CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG	361 AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAAGGGCAAGAGGTCATCTGAG 420	463 GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTCGAGGAAATG 522	403 ATECTESSANGACTESSANGAANTACAAAANGCAGAAANGCTCATAGATCGAGGAAATG 360 301 GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG 360

92.0%; Score 1807.4; DB 6; Length 2647; nservative 96.3%; pred. No. 0; CGTGGTAGAGGTCGCGGGCAGTTGGTGGCACAAGAGCGAGAGGACATC;	PUBLICATION NO. US20040005560A1 GENERAL INFORMATION: APPLICANT: HELIX RESEARCH INSTITUTE TITLE OF INVENTION: NO. US20040005560A1e1 full length cDNA FILE REFERENCE: H1-A0106 CURRENT APPLICATION UMBER: US/10/108,260A CURRENT FILING DATE: 2002-03-27 NUMBER OF SEQ ID NOS: 5458 SOFTWARE: Patentin Ver. 2.1 SEQ ID NO 676 LENGTH: 2647 TYPE: DNA ORGANISM: Homo sapiens US-10-108-260A-676	CY 1921 ATRACTACUTTCACGITTTUGARATAGATITTUGATATUG 1964	1897 1861 1957	rcgcatcctcgttttattttttggt CGGAGAGAGATTCAGAGAGATGGAACA CGAGAGAGATTCAGAGATGGAACA CGAGAGAGATTCAGAGATGGAACA CCCTCCCAGCACCCCCA	Db 1657 detadedahedahedahedreeteeketreketrekadedeetreeteketre Qy 1621 gaaagtictcaateccetcaagettetaaageatetaagegeteatgestegat Qy 1621 gaaagtictcaagticcetcaagettetaagaageatetaaggeteatgestegat Db 1717 gaaagtictcagticcetccaagettetaagaageatetaggeteatgegeteatgestegat Qy 1681 aatticectaagettaacaagetaageageteeteeteaga	Db 1537 CGTGCCATATCCCAGGAGGACCAGCTGGCCCCTGCTGGCAGCACCCCTGCAGACACCCCTCCAGAGACCAGCTGCACCAGGACCAGCACCAGGACCACCCCTTCAGA Oy 1501 CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA Db 1597 CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA OY 1561 GCTAGGGACGAACAGCCGTGTGCCTCCAGCCTTCAGGGCCTTGCGCCTTCAGACACTTGATTCCGACCAGGGCACTCCACTTG	1417 ; 1381 ; 1477 ;
Oy Gaps 1; Db TTATG 60 Db TTATG 814 OY TTTCGA 120 Db TTTCGA 874 Db	D Q D Q D Q D Q D Q D Q D Q D Q D Q D Q	27 B Q7 B	1956 1920 2016	TAAA 1836 Qy CACC 1800 Db	TTG 1716 Qy GAT 1680 Db GAT 1776 Qy GAA 1740 Db	1560 1620	Qy ACG 1476
1021 AAGCATCTTACGGCCTCTATCAAGAAACTAAGAAGCAGGGGGACCTGCCACCCCCA 1080	841 CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA 900	CTGCAGGGATTTCACAGCCCAAATGGCCGGACCGTCCAGGGCTCCAAAAAAAA	CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC [481 GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 540	361 AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGAGAAAGGGCAAGAGGTCATCTGAG 420	ATGCTGGGAGACTGGGAGAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAGAIGHHIHHHIHHHIHHHIHHIHHIHHIHHIHHIHHIHHIHH	121 AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG 180

```
Sequence 3, Application US/10071838
Publication No. US20030044814A1
GENERAL INFORMATION:
APPLICANT: Li, Jing
APPLICANT: Powers, Scott
APPLICANT: Peng, Yue
APPLICANT: Peng, Yue
APPLICANT: Tularik Inc.
TITLE OF INVENTION: PRC17: An Amplified Can
FILE REFERENCE: 018781-007610US
CURRENT APPLICATION NUMBER: US/10/071,838
CURRENT FILING DATE: 2002-05-07
PRIOR APPLICATION NUMBER: US 60/267,615
PRIOR FILING DATE: 2001-02-08
NUMBER OF SEQ ID NOS: 18
SOPTWARE: Patentin Ver. 2.1
SEQ ID NO 3
LENGTH: 2146
                                                                                                                                                                                          RESULT 6
US-10-071-838-3
                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                            र्
                                                                                                                                                                                                                                                                                                                                                                                                 닭
                                                                                                                                                                                                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유 &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                     뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ઈ
                                                                                                                                                                                                                                                                                                                                                                                                                            1681
                                                                                                                                                                                                                                                                                                                                           1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1949
                                                                                                                                                                                                                                                                                                                                                                                                                                                 2309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2249
                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                   ATAACCACCTTCATGTTTTGAAATAAATGTTTCCTGTTG
                                                                                                                                                                                                                                               ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTG
                                                                                                                                                                                                                                                                                      CATCGITCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                 AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCCCCAGCACCCCCAGCCCCACGAC
                                                                                                                                                                                                                                                                                                                                                                          AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTAGGGAACGAACAGCCGTGTGCCTCCCACCTCAGGGCCCTTGCCCTCTGCGGCCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                     AGACCCCAGATCACAAAGCCAACCCATGCCCAGCCCCCAGCCCCCAGCCCCACGAC
                                                                                                                                                                                                                                                                                                                                                               CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGTTCAGAGATGGAACACACC
                                                                                                                                                                                                                                                                                                                                                                                                       AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCATCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTTGGTCAGCTTCCCCGCCACGGCACCTCGTTCTTCCACACCCCTGTCCTGGTGGGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCCTGTCCTGGTGGGGCCT
                                                                                            An Amplified Cancer
                                                                                                                                                                                                                                                         1959
                                                                                                                                                                                                                                                                                                                                                                                   1800
                                                                                                                                                                                                                                                                                                                                                                                                                            1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1948
                                                                                                                                                                                                                                                                                                 1920
                                                                                                                                                                                                                                                                                                                                          1860
                                                                                                                                                                                                                                                                                                                                                                                                       2428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2008
                                                                                                                                                                                                                                                                            2608
                                                                                                                                                                                                                                                                                                                      2548
                                                                                                                                                                                                                                                                                                                                                               2488
                                                                                                                                                                                                                                                                                                                                                                                                                                                 2368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1380
            밁
                           Ś
                                                    밁
                                                                  5
                                                                                       멼
                                                                                                             5
                                                                                                                                     밁
                                                                                                                                                     S
                                                                                                                                                                              밁
                                                                                                                                                                                                5
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                В
                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                          片
                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
```

```
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1).
US-10-071-838-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 1805; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
OTHER INFORMATION: human
                                                                                                                                                    1001
                                                                                            1061
                                      1121
           999
                                                                939
                                                                                                                        879
                                                                                                                                                                                                                                                                                          699
                                                                                                                                                                               819
                                                                                                                                                                                                           941
                                                                                                                                                                                                                                       759
                                                                                                                                                                                                                                                                   881
                                                                                                                                                                                                                                                                                                                           821
                                                                                                                                                                                                                                                                                                                                                    639
                                                                                                                                                                                                                                                                                                                                                                                761
                                                                                                                                                                                                                                                                                                                                                                                                            579
                                                                                                                                                                                                                                                                                                                                                                                                                                        701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGAGACGGAGCTGCCTCTGACTGCGCGGGAGGCGAAGCAAATTCGGCGGGAGATCAG
CAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAA 1058
                                      CGAACAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCAC
                                                                                                                                                    GATTGACGGGATCTCTCCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGG
                                                                                                                                                                      GATTGACGGGATCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGG
                                                                                                                                                                                                         GGGGCTCCAAGACCAACAGGAGCATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCA
                                                                                                                                                                                                                                                                                                                                                                                               CGCCGCCTTGTTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCTCCTGGCATATGAGGAGTATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGGAAGCATATATTCTTCAGGGATCGATACGGAACCAAGCGGGGAACTACTCCACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAAGGGCAAGAGGTCATCTGAGCACATCCAGCGCATCGACCGGGACGTAAGCGGGACATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTCCTGAACATTGAGGAAATGAAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTCCTGAACATTGAGGAAATGAAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTCATAGATCGAGCGTACAAGGGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTCATAGATCGAGCGTACAAGGGAATGCCCATGAACATCCGGGGCCCCGATGTGGTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGAAAGAGCAAGTGGGT-GATATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCGAAAGAGCAAGTGGGTGGATATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAA
                                                                                              CGAACAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCAC
                                                                                                                                                                                                                                                                                                                           GCTGGCCAGTGAGAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCA
                                                                                                                                                                                                                                                                                                                                                       GCTGGCCAGTGAGAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGGAAGCATATATTCTTCAGGGATCGATACGGAACCAAGCAGCGGGAACTACTCCACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAAGGGCAAGAGGTCATCTGAGCACATCCAGCGCATCGACCGGGACGTAAGCGGGACATT
                                                                                                                                                                                                                                                                                                                                                                                 CGCCGCCTTGTTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTCCTGGCATATGAGGAGTATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (1) .. (1832)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       91.3%;
99.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRC17 splice variant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1794; Di
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DΒ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 (exon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ъ
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 expanded)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                       1180
                                                                                            1120
                                                                                                                                                    1060
                                                                                                                                                                                                                                       818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       278
                                                                   998
                                                                                                                                                                                                           1000
                                                                                                                                                                                                                                                                                          758
                                                                                                                        938
                                                                                                                                                                                878
                                                                                                                                                                                                                                                                   940
                                                                                                                                                                                                                                                                                                                           880
                                                                                                                                                                                                                                                                                                                                                     698
                                                                                                                                                                                                                                                                                                                                                                                 820
                                                                                                                                                                                                                                                                                                                                                                                                            638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     401
                                                                                                                                                                                                                                                                                                                                                                                                                                        760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          518
```

CAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAA

```
RESULT 7
US-10-071-838-5
; Sequence 5, Application US/10071838
; Publication No. US20030044814A1
; GENERAL INFORMATION:
; APPLICANT: Li, Jing
; APPLICANT: Powers, Scott
; APPLICANT: Xiang, Phil
                                                                                                    ક
                                                                                                                                      ર્
                                                                                                                                                                        δ
                                                                                                                                                                                            음 성
                                                                                                                                                                                                                           멍
                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                 음 성
                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                          밁
                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ર્શ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1119
                                                                                                         1959
                                                                                                                                                             2021
                                                                                                                                                                              1839
                                                                                                                                                                                               1961
                                                                                                                                                                                                                 1779
                                                                                                                                                                                                                                 1901
                                                                                                                                                                                                                                                   1719
                                                                                                                                                                                                                                                                    1841
                                                                                                                                                                                                                                                                                     1659
                                                                                                                                                                                                                                                                                                      1781
                                                                                                                                                                                                                                                                                                                                        1721
                                                                                                                                                                                                                                                                                                                                                        1539
                                                                                                                                                                                                                                                                                                                                                                          1661
                                                                                                                                                                                                                                                                                                                                                                                           1479
                                                                                                                                                                                                                                                                                                                                                                                                             1601
                                                                                                                                                                                                                                                                                                                                                                                                                             1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1241
                                                                                                                                            1899
                                                                                                                                                                                                                                                                                                                       1599
                                                                                         GAAATG
                                                                                                         GAAATG 1964
                                                                                                                          CCAGCACCCCCAGCCCCACGACCATCGTTCTGAATTCTGACGACACCGTGAGCCTTGCCTT
                                                                                                                                                                                                          AGATTCAGAGATGGAACACACAGACCCCAGATCACAAAGCCAACCCATGCCCCAGCCCCTC
                                                                                                                                                                                                                                          TTGCCTCTGCGGCCTCCACTTGGAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCT 1658
                                                                                                                                                                                                                                                                                                                                       GCAGGCTGAACACCCTGCGGAGGCGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTC 1538
                                                                                                                                                                                                                                                                                                                                                                                                                      TTTCAGACAGAGCTGCTGGGTCCGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCATGCCCCGCCTCCCAACGGACCTGGACGTAGAGGGCCCTTGGTTCCGCCATTATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCCAGCCCGGCCCTGGCTCAGGGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCCAGCCCGGCCCTGGCTCAGGGAGGACCTCAGGGTTCCTGGAGAGTTCCTGCAGTGGAA 1358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGATTCAGAGATGGAACACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTC
                                                                                                                                                                                                                                  GCAGGCTGAACACCCTGCGGAGCGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTC
                                                                                                                                                                                                                                                                                                                                                                                                             TTTCAGACAGAGCTGCTGGGTCCGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCCATGCCCCGCCTCCCAACGGACCTGGACGTAGAGGGCCCTTGGTTCCGCCATTATGA
                                                                                                                           2140
                                                                                                                                            1958
                                                                                                                                                                                                2020
                                                                                                                                                                                                                 1838
                                                                                                                                                                                                                                                                     1900
                                                                                                                                                                                                                                                                                     1718
                                                                                                                                                                                                                                                                                                                                         1780
                                                                                                                                                                                                                                                                                                                                                        1598
                                                                                                                                                                                                                                                                                                                                                                                                              1660
                                                                                                                                                                                                                                                                                                                                                                                                                              1478
                                                                                                                                                                                                                                                                                                                                                                                                                                                1600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1178
           유
                                       문
                                                         δ
                                                                               유 성
                                                                                                             문
                                                                                                                             S
                                                                                                                                              占
                                                                                                                                                               δ
                                                                                                                                                                                      뮍
                                                                                                                                                                                                   δ
                                                                                                                                                                                                                   멍
                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                          닭
                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; LOCATION: (1)..(1538)
US-10-071-838-5
                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Simi
Matches 1862;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IENGTH: 1862
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
OTHER INFORMATION: human P
FEATURE:
NAME/KEY: CDS
LOCATION: (1)...(1538)
                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity
                            661
                                             601
                                                              601
                                                                                541
                                                                                                 541
                                                                                                                   481
                                                                                                                                    481
                                                                                                                                                     421
                                                                                                                                                                      421
                                                                                                                                                                                       361
                                                                                                                                                                                                        361
                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                  61
                      CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                            AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                  CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                              CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                       AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                   GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                     ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                         AGCTACAACAACGTCGATCATTTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                              AAATACGAAAAAGGGACACCGAGCTGGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                    ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
            CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                          GGAATGCCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                            ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                               89.1%;
94.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRC17
                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1750; D
Pred. No. 0;
0; Mismatches
```

240

300

480

720 720 660 660 600 600 540 540 480 420 360 360 300

420

```
; APPLICANT: Peng, Yue
; APPLICANT: Tularik Inc.
; TITLE OF INVENTION: PRC17: An Amplified Car
; TILE REFERENCE: 018781-007610US
; CURRENT APPLICATION NUMBER: US/10/071,838
; CURRENT FILING DATE: 2002-05-07
; PRIOR APPLICATION NUMBER: US 60/267,615
; PRIOR PILING DATE: 2001-02-08
; NUMBER OF SEQ ID NOS: 18
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 5
; HENGTH: 1862
; TYDE: NNA
splice variant
                                                                                                                                                                                                                                                                                                                    Cancer
2 (exon
10
  deleted)
```

DB <u>ა</u>

Length Indels

0

δ

8 8 8 8

S

음 성 음

밁

ঠ

유정

```
1801
                                                                                                                                                                                                                                                                    1561
                                                                                                                                                                                                                                                                                                                                                                                                                                      1279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
 AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCCAGCCCCACGAC 1860
                                                   AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTTGGTTAAA
                                                                                                                                                                                      GAAAGTTCTCAGTTCCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                      CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                CGTGCCATATCCCAGGAGGACCAGCTGGCCGCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTTGGTCAGCTTCCCCGCCACGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCCTCTGCAAGGGGGAACAGGCCAGGCCCACCAGGCCCGGTTCCCGCGGCCC 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAGCAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGTTCAGAGATGGAACACACC
                                                                                                  AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                 CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -GTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                1698
                                                                 1800
                                                                                                  1638
                                                                                                                                   1740
                                                                                                                                                                  1578
                                                                                                                                                                                                  1680
                                                                                                                                                                                                                                                                1620
                                                                                                                                                                                                                                                                                                   1458
                                                                                                                                                                                                                                                                                                                                  1560
                                                                                                                                                                                                                                                                                                                                                                   1398
                                                                                                                                                                                                                                                                                                                                                                                                  1500
                                                                                                                                                                                                                                                                                                                                                                                                                                   1338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1098
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1038
                                                                                                                                                                                                                                 1518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       761
S
                               밁
                                                            S
                                                                                              문
                                                                                                                          δ
                                                                                                                                                                밁
                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
```

음 성 음 성

8 8 8 8 8

S

В

송 유

8 8 8 8 8 8 8 8 8 8

밁

```
US-10-094-466-61
Sequence 61, Application US/10094466
Publication No. US20030203363A1
GENERAL INFORMATION:
APPLICANT: Spytck et al.
TITLE OF INVENTION: NOVEL HUMAN PROTEINS,
TITLE OF INVENTION: THE SAME
TITLE OF INVENTION: THE SAME
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/274,281
PRIOR FILING DATE: 2001-03-08
PRIOR PELING DATE: 2001-03-08
PRIOR PELING DATE: 2001-05-02
PRIOR FILING DATE: 2001-05-02
PRIOR PELING DATE: 2001-03-09
PRIOR APPLICATION NUMBER: 60/274,849
PRIOR FILING DATE: 2001-03-12
PRIOR FILING DATE: 2001-03-12
PRIOR PELING DATE: 2001-03-12
PRIOR APPLICATION NUMBER: 60/275,235
PRIOR APPLICATION NUMBER: 60/275,579
PRIOR APPLICATION NUMBER: 60/275,579
PRIOR APPLICATION NUMBER: 60/275,579
PRIOR APPLICATION NUMBER: 60/275,501
PRIOR APPLICATION NUMBER: 60/275,601
PRIOR APPLICATION NUMBER: 60/275,601
PRIOR APPLICATION NUMBER: 60/275,601
PRIOR APPLICATION NUMBER: 60/275,601
PRIOR APPLICATION NUMBER: 60/276,000
PRIOR PILING DATE: 2001-03-13
PRIOR APPLICATION NUMBER: 60/276,000
PRIOR PILING DATE: 2001-03-13
PRIOR APPLICATION NUMBER: 60/276,000
PRIOR PILING DATE: 2001-03-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: PatIn 2.1
SEQ ID NO 61
LENGTH: 1752
TYPE: DNA
ORGANISM: Homo sapid
                                                                                                                                                                                                                                                                                                           Query Match 83.4
Best Local Similarity 97.0
Matches 1670; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: CDS
LOCATION: (31)..(1678)
-10-094-466-61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Prior Application data removed - NUMBER OF SEQ ID NOS: 114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 60/277,338 PRIOR FILING DATE: 2001-03-20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/10/094,466
CURRENT FILING DATE: 2002-03-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FILE REFERENCE: 21402-290D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1861
                                                                                    121
181
                                          151
                                                                                                                                91
                                                                                                                                                                             13
                                                                                                                                                                                                                       31
                                                                                                                                                            AAATACGAAAAGGGACACCGAGCTGGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                          ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACGACATCATTATG
AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                   AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGTCTTTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTTAAACTCATGGAAGG 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGG 1818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCTACAACAACGTCGATCATTTGGGGATTGTACAGGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                                                                                                                                                                                                                                  83.4%;
97.0%;
                                                                                                                                                                                                                                                                                                         ; Score 1638.8; ; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                See File Wrapper or PALM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           POLYNUCLEOTIDES
                                                                                                                                                                                                                                                                                                                                                          DB 6;
                                                                                                                                                                                                                                                                                                                52;
                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                        Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENCODING THEM
                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                   150
                                          210
                                                                                      180
                                                                                                                                                                             120
                                                                                                                                                                                                                       90
                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1758
```

```
1261
                                            1231
                                                                    1201
                                                                                               1171
                                                                                                                          1141
                                                                                                                                                    1111
                                                                                                                                                                                 1081
                                                                                                                                                                                                          1051
                                                                                                                                                                                                                                      1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     211
                                                                                                                                                                                                                                                                 991
                                                                                                                                                                                                                                                                                                                      931
                                                                                                                                                                                                                                                                                                                                                                                                                                 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                           871
                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      391
GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGCCCAGCCCCGGCCCTGGCTCAG
                                                          ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCCTGTCCTGGTGGGGCCT
                                                                                                               GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCAGCTTCACGTGGCGGGAAG
                                                                                                                                                                     GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGAAG
                                                                                                                                                                                                                            AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                   TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                       CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                              CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGTTGAAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCCTCTGCAAGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCATGGCCC
                                                                                                                                                                                                            AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                               TGGGCACGTTTTTGGAACCGGTTCGTTGATGCCTGGGCCAGGGATGATGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCAGGGTTTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCCTGAGGAGGATGCATTCTGGGGCACTGGTGAGCTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATCGATACGGAACCAAGCAGCGGGAACTACTTTACATCCTCCTGGCGTATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACATCCAGCAGATGGACCTGGACGTAAGCGGGACATTAAGGAGGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAATTCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGCTGGGAGAATGGGACACCTACAAAAACAGCAGAAAGCTCATAGATCGAGCGTACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                      ACAAGAATCGCCTTTAAGGTTCAGCTAGAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                               ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                           CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAA
                                                                      1260
                                                                                                                          1200
                                                                                                                                                   1170
                                                                                                                                                                               1140
                                                                                                                                                                                                          1110
                                                                                                                                                                                                                                      1080
                                                                                                                                                                                                                                                                 1050
                                                                                                                                                                                                                                                                                           1020
                                                                                                                                                                                                                                                                                                                                                                            930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                            1290
                                                                                                 1230
                                                                                                                                                                                                                                                                                                                       990
                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           570
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      270
                                                                                                                                                                                                                                                                                                                                                                                                                                 870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           660
 Ş
                  문
                                                5
                                                                                  片
                                                                                                           S
                                                                                                                                                                                           LENGTH: 7856

TYPE: DNA

ORGANISM: Homo sapiens

FEATURE:

FEATURE:

LOCATION: (1697)...(4054)

OTHER INFORMATION: 100% homologous to Homo sapiens oncogene, accession number

OTHER INFORMATION: X63346, Smith-Waterman Score=4233.

US-10-450-763-21335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5
                                                                                                                                         Matches
                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1681
    121
                                                       61
                                                                                                              ــ
```

S

8 Ş 밁 र् 밁 Ś 밁 ક 문 S ð 밁 8 밁 δ

당 S 日

```
PRIOR APPLICATION NUMBER: PCT/USO1/08631
PRIOR FILING DATE: 2001-03-30
PRIOR PPLICATION NUMBER: 09/540,217
PRIOR PILING DATE: 2000-03-31
PRIOR APPLICATION NUMBER: 09/649,167
PRIOR PILING DATE: 2000-08-23
NUMBER OF SEQ ID NOS: 60736
SOFTWARE: Custom
SEQ ID NO 21335
ENOTH: 7856
                                                                                                                                                                                                                                                                                                                                                                    RESULT 9
US-10-450-763-21335
; Sequence 21335, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                           APPLICANT: HYSEG, INC
TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND
FILE REFERENCE: 790CIP3/US
CURRENT APPLICATION NUMBER: US/10/450,763
CURRENT FILING DATE: 2003-06-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1291 GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTC 1722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATTTCCCTAGGCTTAACAACCAAGCAAGCTTCGCCTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA 1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTAGGGACGAACAGCAGTGTGCTCCCACCTCAGGACCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGTGCCATATCCCAGGAGGACCAGCCGGCCACCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGGGTGAGATCGGCTTTCAGTGCGCCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                              POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1530
```

```
1332;
                                                                                                                                                    Similarity
                                       ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
AGCTACAACAACACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG 180
                                                                                 ATGGACATGGTAGAGAATGCAGATAGTTTGCAGGCACAGGAGCGGAAGGACATACTTATG
                                                                                                                                       Conservative
                                                                                                                                                    62.1%;
                                                                                                                                      Score 1220; DE Pred. No. 0; 0; Mismatches
                                                                                                                                       0
                                                                                                                                                                 DB 9;
                                                                                                                                         165; Indels
                                                                                                                                                                 Length
                                                                                                                                       ω
--
                                                                                                                                       Gaps
                                                                                 1756
                           1816
```

δ 밁 Ś 밁 ঠ 밁

δ 밁 δ 밁 δ 밁 S В

ફ 밁

ð

음 성 음 성 음

δ

음 성

B

```
1081
                                                                                                                                                                                                                                                                                                          2594
                                                                                                                                                                                                                                                                                                                                                                                   2534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1934
                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                       841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301
                     GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGAAG
                                                                                                                                                                              AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                             TGGGCACGTCTGCGGAACCAATTCTTCGATACCTGGGCCATGAACGATGACACCGTGCTC
                                                                                                                                                                                                                                                               TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                            ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                CTCACCCTGCGCCTGTGGGACGTGTATTTGGTGGAAGGAGAACAGGTGTTGATGCCAATA
                                                                                                                                                                                                                                                                                                                                                                                                       CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGCCTGAGGAGGACGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCACCGCCTTGTTCCTCCTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATCGATATGGAGCCAAGCAGGGAACTATTCTACATCCTCCTGGCCTATTCGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGCTGGGAGACTGGGAGAAATACAAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCCAGGATTCCACAGCCCAAATGGTGGGACAGTCCAGGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CACATCCACCACATCGACCTGGACGTGAGGACGACTCTCCGGAACCATGTCTTCTTTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGTTGAAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAATTCCCATGAACATCCGGGGCCCGGTGTGGTCAGTCCTCCTGAACATTCAGGAAATC 2053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGCTGGGAGAATGGGAGACATATAAGCACAGTAGCAAACTCATAGATCGAGTGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAGGGGCAAGAGGTCATCTGAA 2113
2893
                                   1200
                                                                         2833
                                                                                                                                                    2773
                                                                                                                                                                                        1080
                                                                                                                                                                                                                                                               1020
                                                                                                                                                                                                                                                                                                      2653
                                                                                                                                                                                                                                                                                                                                                                              2593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                          960
                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                           2533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
```

유 성

8 8 8 8 8 8 8 8 8 8 8

1201

ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT

```
APPLICANT: Hyseq, Inc
APPLICANT: Hyseq, Inc
FILE OF INVENTION: NOVEL NUCLEIC ACIDS AND POI
FILE REFERENCE: 790CLP3/US
CURRENT APPLICATION NUMBER: US/10/450,763
CURRENT FILING DATE: 2003-06-11
PRIOR APPLICATION NUMBER: PCT/US01/08631
PRIOR FILING DATE: 2001-03-30
PRIOR APPLICATION NUMBER: 09/540,217
PRIOR FILING DATE: 2000-03-31
PRIOR APPLICATION NUMBER: 09/649,167
PRIOR APPLICATION NUMBER: 09/649,167
PRIOR FILING DATE: 2000-08-23
NUMBER OF SEQ ID NOS: 60736
SOFTWARE: CUSCOM
SEQ ID NO 24017
LENGTH: 7856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TYPE: DNA
; ORANISM: Homo sapiens
; PEATURE:
; NAME/KEY: SIMILAR
; LOCATION: (1697)...(4054)
; OTHER INFORMATION: 100% homologous to Homo sapiens oncogene, accession number
; OTHER INFORMATION: X63546, Smith-Waterman Score=4233.
US-10-450-763-24017
S
                                 밁
                                                                     ঠ
                                                                                                        밁
                                                                                                                                    S
                                                                                                                                                                             밁
                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 10
US-10-450-763-24017
; Sequence 24017, Application US/10450763
; Publication No. US20050196754A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                               Best Local Similarity Matches 1332; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                         1697
                                   1934
                                                                                                        1874
                                                                                                                                                                               1817
                                                                                                                                                                                                                                                      1757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3074
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2894
                                                                                                                                            181
                                                                                                                                                                                                                 121
 301
                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                              1 ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                           ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                 AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                      AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                           ATGGACATGGTAGAGAATGCAGATAGTTTGCAGGCACAGGAGCGGAAGGACATACTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTTGCTCAGCTTCCCCGCCATGGGCATCTCGTTTTTCCACGCCCTGTCCTGGTGGGGCT 2953
                                   ATGCTGGGAGAATGGGAGACATATAAGCACAGTAGCAAACTCATAGATCGAGTGTACAAG 1993
                                                                                                      AAGTATGACAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTGAGCCCGTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCCTCCCAACG 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGTGTGCCCAGCCCGGCCCTGGCTCAG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTGCCATATCCCAGGAGGACCAGCTGGCCACCTGGCAGGCTGAACACTGCGGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACCTGGATATAGGGGGCCCTTGGTTCCCCCCATTATGATTTTGAACGGAGCTGCTGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAGGACCTCAGGGTTCCTGGAGATTCCTGGAGTGGAAGTCAATGCCCCGGCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                               62.1%;
88.8%;
                                                                                                                                                                                                                                                                                                                                                                                             Score 1220; DB 9;
Pred. No. 0;
0; Mismatches 165;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POLYPEPTIDES
                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                               س
--
                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                      120
                                                                                                                                                                             1873
                                                                                                                                                                                                                                                    1816
                                                                                                                                                                                                                                                                                                                         1756
                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3013
```

```
S
                                                                밁
                                                                              5
                                                                                                 밁
                                                                                                                    S
                                                                                                                                                                                                                                ક
                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                            S
         ş
                          밁
                                                                                                                                           밁
                                                                                                                                                       S
                                                                                                                                                                            밁
                                                                                                                                                                                              ð
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                        닭
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
          1381
                            3014
                                              1321
                                                                 2954
                                                                                   1261
                                                                                                      2894
                                                                                                                                            2834
                                                                                                                                                             1141
                                                                                                                                                                                2774
                                                                                                                                                                                                   1081
                                                                                                                                                                                                                    2714
                                                                                                                                                                                                                                                          2654
                                                                                                                                                                                                                                                                                              2594
                                                                                                                                                                                                                                                                                                                                    2534
                                                                                                                                                                                                                                                                                                                                                                       2474
                                                                                                                                                                                                                                                                                                                                                                                                            2414
                                                                                                                                                                                                                                                                                                                                                                                                                                                 2354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1994
                                                                                                                        1201
                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        421
                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                               721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                       GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                  GTCCGGGAAGACACGTACCCTGTGGGCACTCAGGGTGTGCCCAGCCTGGCCCTGGCTCAG
                                                                           GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                 ATTIGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGGGGCT
                                                                                                                                                                                                                                                                     TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                         ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                              CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                   CATGTGGTAGCCACGTCACAAGCCCAAGACCCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCCAGGATTCCACAGCCCAAATGGTGGGACAGTCCAGGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACATCCACCACATCGACCTGGACGTGAGGACGACTCTCCGGAACCATGTCTTCTTTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGAGGACCTCAGGGTTCCTGGAGATTCCTGGAGTGGAAGTCAATGCCCCGGCTCCCAACG
                                                                                                                                            ACCCTCTGCAAGGGGTATAGGCAGGCCCCTCCAGGCCCACCAGCCCAGTTCCAGCGGCCC
                                                                                                                                                                                                                     AAGCATCTTAGGGCCTCTACGAAGAAACTAACAAGGAAGCAAGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                       AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                               ACCAGCATTGCTCTTAAGGTTCAGCAGAAGCGCCTCATGAAGACATCCAGGTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                    CTCACCCTGCGCCTGTGGGACGTGTATTTGGTGGAAGGAGAACAGGTGTTGATGCCAATA
                                                                                                                                                                                                                                                                                                                                                                       CTGCCTGAGGAGGACGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATCGATATGGAGCCAAGCAGGGAACTATTCTACATCCTCCTGGCCTATTCGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGTTGAAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAGGGGGCAAGAGGTCATCTGAA
                                                                                                                                                            1080
                             3073
                                                                  3013
                                                                                                       2953
                                                                                                                         1260
                                                                                                                                                              1200
                                                                                                                                                                                 2833
                                                                                                                                                                                                    1140
                                                                                                                                                                                                                      2773
                                                                                                                                                                                                                                                           2713
                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                                                                                                               2653
                                                                                                                                                                                                                                                                                                                                    2593
                                                                                                                                                                                                                                                                                                                                                                       2533
                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                             2473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2053
                                                                                                                                            2893
                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                 2413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
 음 성
                                밁
                                                     Ś
                                                                          문
                                                                                       δ
                                                                                                          8
                                                                                                                               δ
                                                                                                                                                   밁
                                                                                                                                                                 S
                                                                                                                                                                                        밁
                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 1332
                                                                                                                                                                                                                                                                                                        1757
                                                                                                                                                     1994
                                                                                                                                                                                          1934
                                                                                                                                                                                                                               1874
                                                                                                                                                                                                                                                                    1817
                   541
                                                          481
                                                                                             421
                                                                                                                                                                      301
                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                           61
```

```
GENERAL INVOLUTION: Gene Determination
TITLE OF INVENTION: Cancer Gene Determination
TITLE OF INVENTION: Sets
FILE REFERENCE: 689290-75
CURRENT APPLICATION NUMBER: US/60/235,082
PRIOR APPLICATION NUMBER: US/60/235,082
PRIOR FILING DATE: 2000-09-25
PRIOR FILING DATE: 2000-09-25
PRIOR APPLICATION NUMBER: US/60/234,924
PRIOR FILING DATE: 2000-09-25
NUMBER OF SEQ ID NOS: 568
SOFTWARE: PATENTIN VETSION 3.0
SEQ ID NO 562
LENGTH: 7879
TYPE: DNA
ORGANISM: Homo sapiens
US-09-962-436-562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 11
US-09-962-436-562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 562, Application Patent No. US20020081301A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
hes 1332; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3074
AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATCGATATGGAGCCAAGCAGAGGGAACTATTCTACATCCTCCTGGCCTATTCGGAGTAT
                                                                                                 GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                               CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                 AGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGGGGCAAGAGGTCATCTGAA
                                                                                                                                                                                                                                                                                                                                        GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                      ATGCTGGGAGAATGGGAGACATATAAGCACAGTAGCAAACTCATAGATCGAGTGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCTACAACAACCAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGTATGACAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTGAGCCCCGTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGGACATGGTAGAGAATGCAGATAGTTTGCAGGCACAGGAGCGGAAGGACATACTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTGCCATATCCCAGGAGGACCAGCTGGCCACCTGCTGGCAGGCTGAACACTGCGGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGCAGGCTGAACACCCCTGCGGAG 1500
                                                                                                                                                       CACATCCACCACCACGACCTGGACGTGAGGACGACTCTCCGGAACCATGTCTTTTAGG
                                                                                                                                                                                                                                                   AAGTTGAAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGAGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                            GGAATTCCCATGAACATCCGGGGCCCGGTGTGGTCAGTCCTCCTGAACATTCAGGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCTGGATATAGGGGGCCCTTGGTTCCCCCATTATGATTTTTGAACGGAGCTGCTGGGTC 3133
                                                                                                                                                                                                                                                                                                                                                                                                                          ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         62.1%;
ilarity 88.8%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US/09962436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1220; D
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Determination
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           165;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Therapeutic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ω
••
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Screening Using
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3193
                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1816
   2293
                                         600
                                                                             2233
                                                                                                                                                         2173
                                                                                                                                                                                                                                 2113
                                                                                                                                                                                                                                                                                                              2053
                                                                                                                                                                                                                                                                                                                                                                                        1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       60
                                                                                                                   540
                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Signati
```

```
RESULT 12
US-10-843-641A-3021
Sequence 3021, Application US/10843641A
Sequence 3021, Application US/10843641A
Publication No. US20050064454A1
GENERAL INFORMATION:
FITTLE OF INVENTION: Cancer Gene Determination and TITLE OF INVENTION: Signature Gene Sets
FILE REFERENCE: 680290-189
CURRENT APPLICATION NUMBER: US/10/843,641A
CURRENT FILING DATE: 2004-05-12
                                                                                                                                                                                     밁
                                                                                                                                                                                                         S
                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                        3074
                                                                                                                                                                                                                                                                                               3014
                                                                                                                                                                                                               1441
                                                                                                                                                                                                                                                                    1381
                                                                                                                                                                                                                                                                                                                          1321
                                                                                                                                                                                                                                                                                                                                                      2954
                                                                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                            2894
                                                                                                                                                                                                                                                                                                                                                                                                                                      1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                  CGTGCCATATCCCAGGAGGACCAGCTGGCCACCTGCTGGCAGGCTGAACACTGCGGAGAG
                                                                                                                                                                                                    CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                        GACCTGGATATAGGGGGCCCTTGGTTCCCCCATTATGATTTTGAACGGAGCT
                                                                                                                                                                                                                                                          ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCACCCTGCGCCTGTGGAACGTGTATTTGGTGGAAGAGACAGGTGTTGATGCCAATA
                                                                                                                                                                                                                                                                                              GGAGGACCTCAGGGTTCCTGGAGATTCCTGGAGTGGAAGTCAATGCCCCGGCTCCCAACG
                                                                                                                                                                                                                                                                                                                        GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                    GTCCGGGAAGACACGTACCCTGTGGGCACTCAGGGTGTGCCCAGCCTGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                 GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                           ATTTGCTCAGCTTCCCCGCCATGGGCATCTCGTTTTTCCACGCCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                         ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCAAACGCGAGCAAGGGTCCTTGGCACCCAGGCCTGTGCCGGCTTCACGTGGTGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCATCTTAGGGCCTCTACGAAGAAACTAACAAGGAAGCAAGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGGCACGTCTGCGGAACCAATTCTTCGATACCTGGGCCATGAACGATGACACCGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCAGGGATTTCACAGCCCAAATGGCGGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCCTGAGGAGGACGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCCAGGATTCCACAGCCCAAATGGTGGGACAGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                            and
                                                          Therapeutic
                                                         Screening
                                                         Using
                                                                                                                                                                                                                                                                  1440
                                                                                                                                                                                                             1500
                                                                                                                                                                                                                                                                                                                                                                              1320
                                                                                                                                                                                                                                                                                                                        1380
                                                                                                                                                                                                                                                                                                                                                                                                                                     1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2653
                                                                                                                                                                                   3193
                                                                                                                                                                                                                                        3133
                                                                                                                                                                                                                                                                                              3073
                                                                                                                                                                                                                                                                                                                                                    3013
                                                                                                                                                                                                                                                                                                                                                                                                           2953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               660
                                        S
                                                                       밁
                                                                                          S
                                                                                                                          밁
                                                                                                                                                  ঠ
                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                  밁
                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 7878
TYPE: DNA
ORGANISM: Homo sapiens
US-10-843-641A-3021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local S
Matches 1332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: Patentin
SEQ ID NO 3021
LENGTH: 7878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Remaining Prior P
NUMBER OF SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OR APPLICATION NUMBER: US/09/964,824
OR FILING DATE: 2001-09-27
OR APPLICATION NUMBER: US/09/967,768
OR FILING DATE: 2001-09-28
OR APPLICATION NUMBER: US/09/968,007
OR FILING DATE: 2001-10-02
OR FILING DATE: 2001-10-02
OR APPLICATION NUMBER: US/09/969,347
OR FILING DATE: 2001-10-03
OR APPLICATION NUMBER: US/09/969,708
OR APPLICATION NUMBER: US/09/969,708
OR APPLICATION NUMBER: US/09/969,708
OR FILING DATE: 2001-10-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OR FILING DATE: 2001-09-18
OR APPLICATION NUMBER: US/09/954,456
DR FILING DATE: 2001-09-25
OR APPLICATION NUMBER: US/09/962,436
DR FILING DATE: 2001-09-25
DR APPLICATION NUMBER: US/09/962,832
DR APPLICATION NUMBER: US/09/962,832
DR APPLICATION NUMBER: US/09/962,832
DR FILING DATE: 2001-09-25
                                                                      2174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/09/873,367
FILING DATE: 2001-06-05
APPLICATION NUMBER: US/09/954,531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                1757
                                                                                                                             2114
                                                                                                                                                                                  2054
                                                                                                                                                                                                                                       1994
                                                                                                                                                                                                                                                                                            1934
                                                                                                                                                                                                                                                                                                                                                   1874
                                                                                                                                                                                                                                                                                                                                                                                                         1817
                    2234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        atch 62.1%; cal Similarity 88.8%; 1332; Conservative
                                            541
                                                                                                 481
                                                                                                                                                                                                            361
                                                                                                                                                      421
                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Prior Application data SEQ ID NOS: 8447
                                   AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                         GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                           CACATCCACCACATCGACCTGGACGTGAGGACGACGTCTCCGGAACCATGTCTTTAGG
                                                                                                                                                     CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGGGGCAAGAGGTCATCTGAA
                                                                                                                                                                                                                                                    GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                            ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                 ATCAACAGCAGCA---TTGATCGTTTTGGCATTTTGCATGAGACGGAGCTGCCTCCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                        AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGTATGACAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTGAGCCCGTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAATACGAAAAGGGACACCGAGCTGGGGTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGACATGGTAGAGAATGCAGATAGTTTGCAGGCACAGGAGCGGAAGGACATACTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                         GATCGATATGGAGCCAAGCAGAGGGAACTATTCTACATCCTCCTGGCCTATTCGGAGTAT
                                                                                                                                                                                                             AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                       GGAATTCCCATGAACATCCGGGGCCCGGTGTGGTCAGTCCTCCTGAACATTCAGGAAATC
                                                                                                                                                                                                                                                                                            ATGCTGGGAGAATGGGAGACATATAAGCACAGTAGCAAACTCATAGATCGAGTGTACAAG
                                                                                                                                                                                                                                                                                                                                                   version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1220; DB 9;
Pred. No. 0;
0; Mismatches 165;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               removed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               •
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               See
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            File Wrapper
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    7878;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ω
•-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PALM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                              600
                                                                                                 540
                                                                                                                                                                                                            420
                    2293
                                                                         2233
                                                                                                                             2173
                                                                                                                                                      480
                                                                                                                                                                                  2113
                                                                                                                                                                                                                                                                                            1993
                                                                                                                                                                                                                                                                                                                                                   1933
                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                        1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1756
                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                      300
```

S 밁 S

```
RESULT 13
US-10-956-157-1259
(Sequence 1259, Application US/10956157)
; Sequence 1259, Application US/10956157
; Publication No. US20050118625A1
; GENERAL INFORMATION:
; APPLICANT: Wyeth
; APPLICANT: Mounts, William
; APPLICANT: MOUNTS, WILLIAM
; TITLE OF INVENTION: NUCLEIC ACID ARRAYS FOR DETECTING GENE EXPRESSION :
TITLE OF INVENTION: HUMAN OSTEOARTHALTIS AND HUMAN PROTEASES
; FILE REFERENCE: 031895-043000 (AM 101081)
; CURRENT APPLICATION NUMBER: US/10/956,157
; CURRENT FILING DATE: 2004-10-04
                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                  र्
                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          음 중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                닭
                                                                                                                                                                                                                                             1381
                                                                                                                                                                                                                                                                      3014
                                                                                                                                                                                                                                                                                           1321
                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                        1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                2774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2714
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2474
                                                                                                                                                                                                                                                                                                                    2954
                                                                                                                                                                                                                                                                                                                                                                   2894
                                                                                                                                                                                                                                                                                                                                                                                         1201
                                                                                                                                                                                                                                                                                                                                                                                                                2834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                       CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                      GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                   GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACCTGGATATAGGGGGCCCTTGGTTCCCCCATTATGATTTTGAACGGAGCTGCTGGGTC
                                                                                                                                                                                                                                                                   GEAGGACCTCAGGGTTCCTGGAGTTCCTGGAGTGGAAGTCAATGCCCCGGCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                              ACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCGGGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGGCACGTCTGCGGAACCAATTCTTCGATACCTGGGCCATGAACGATGACACCGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCAGCATTGCTCTTAAGGTTCAGCAGAAGCGCCTCATGAAGACATCCAGGTGTGGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCACCCTGCGCCCTGTGGGACGTGTATTTGGTGGAAGGAGAACAGGTGTTGATGCCAATA
                                                                                                                                                                                                                                                                                                                                                                   ATTTGCTCAGCTTCCCCGCCATGGGCATCTCGTTTTTCCACGCCCTGTCCTGGTGGGGGCCT
                                                                                                                                                                                                                                                                                                                                                                                          ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                 ACCCTCTGCAAGGGGTATAGGCAGGCCCCTCCAGGCCCACCAGCCCAGTTCCAGCGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCAAACGCGAGCAAGGGTCCTTGGCACCCAGGCCTGTGCCGGCTTCACGTGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGCATCTTAGGGCCTCTACGAAGAAACTAACAAGGAAGCAAGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ASSOCIATED
                                                                                                                                                                                                                                                                                                                                            1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2473
                                                                                                                                                                                                                       3133
                                                                                                                                                                                                                                              1440
                                                                                                                                                                                                                                                                      3073
                                                                                                                                                                                                                                                                                                                                                                                          1260
                                                                                                                                                                                                                                                                                                                                                                                                                                          1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2353
                                                                                                                                                                         3193
                                                                                                                                                                                                1500
                                                                                                                                                                                                                                                                                            1380
                                                                                                                                                                                                                                                                                                                    3013
                                                                                                                                                                                                                                                                                                                                                                   2953
                                                                                                                                                                                                                                                                                                                                                                                                                   2893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                    TITW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; NUMBER OF SEQ ID NOS: 319805
; SOFTWARE: PATENTIN VERSION 3.2
; SEQ ID NO 1259
; LENGTH: 7878
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-956-157-1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
   δ
                          밁
                                            S
                                                                                            ર્
                                                                                                                                           र्
                                                                                                                                                                        밁
                                                                                                                                                                                        S
                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                         र्
                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                          밁
                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 1332; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1697
                                                                                                                                                                                                                                                                                                                                                                   2114
                                                                                                                                                                                                                                                                                                                                                                                                                   2054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1817
                                                                                                                           2414
                                                                                                                                                                                                                         2294
                                                                                                                                                                                                                                                                      2234
                                                                                                                                                                                                                                                                                                                     2174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1934
                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                             541
                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 \vdash
      ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                          CTCACCCTGCGCCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                         CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                       CTGCCTGAGGAGGACGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                     CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                   AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                     GATCGATATGGAGCCAAGCAGAGGGAACTATTCTACATCCTCCTGGCCTATTCGGAGTAT
                                                                                                                                                                                                                                                                                                                                   GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                   CACATCCACCACCACCTGGACGTGAGGACGACTCTCCGGAACCATGTCTTTTAGG
                                                                                                                                                                                                                                                                                                                                                                                    CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                 AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGCTGGGAGAATGGGAGACATATAAGCACAGTAGCAAACTCATAGATCGAGTGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGCTGGGAGACTGGGAGAAATACAAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATCAACAGCAGCA ---TTGATCGTTTTGGCATTTTGCATGAGACGGAGCTGCCTCCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCTACAACAACGACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGTATGACAAGGGACACCGAGCTGGGGCTGCCAGAGGACAAGGGGGCCTGAGCCCGTTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAATACGAAAAGGGACACCGAGCTGGGGTGCCAGAGGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATGGACATGGTÄGÄGAATGCAGATÄGTTTGCAGGCACAGGAGCGGAÄGGÄCÄTACTTÄTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGCCAGGATTCCACAGCCCAAATGGTGGGACAGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                       AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCACCGCCTTGTTCCTCCTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAATTCCCATGAACATCCGGGGCCCGGTGTGGTCAGTCCTCCTGAACATTCAGGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62.1%;
nilarity 88.8%;
Conservative
                                                                            3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 1220; DE Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          165;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ω
~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                         2293
                                                                                                                                                                                                                                                                                                                                                                                                                    2113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1756
                               2593
                                                                              2533
                                                                                                                            2473
                                                                                                                                                                            2413
                                                                                                                                                                                                                         2353
                                                                                                                                                                                                                                                                                                600
                                                                                                                                                                                                                                                                                                                      2233
                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                      2173
                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1933
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
       960
                                                     900
                                                                                                                                                   780
                                                                                                                                                                                                  720
                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1;
```

밁 ર્ક Ş

```
APPLICANT: Hyseq, Inc
APPLICANT: Hyseq, Inc
TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND
FILE REFERENCE: 790CIP3/US
CURRENT APPLICATION NUMBER: US/10/450,763
CURRENT APPLICATION NUMBER: PCT/US01/08631
PRIOR APPLICATION NUMBER: PCT/US01/08631
PRIOR FILING DATE: 2001-03-30
PRIOR PILING DATE: 2000-03-31
PRIOR FILING DATE: 2000-03-31
PRIOR FILING DATE: 2000-03-31
PRIOR FILING DATE: 2000-08-23
NUMBER OF SEQ ID NOS: 60736
SOFTWARE: CUSTUM
SEQ ID NO 24016
LENGTH: 8180
                                                              NAME/KEY: SIMILAR

LOCATION: (4369)...(6126)

OTHER INFORMATION: 97% homologous to Homo sapiens oncogene, accession

OTHER INFORMATION: X63546, Smith-Waterman Score=3063.

US-10-450-763-24016
                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 14
US-10-450-763-24016
                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
           Query Match
Best Local Similarity
Matches 1332; Conserv
                                                                                                                                                                                                                                                                                                                                                            Sequence 24016, Application US/10450763
Publication No. US20050196754A1
GENERAL INFORMATION:
                                                                                                                               TYPE: DNA
ORGANISM: Homo :
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2774
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCAAACCCGAGGAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTGCCATATCCCAGGAGGACCAGCTGGCCACCTGCTGGCAGGCTGAACACTGCGGAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACCTGGATATAGGGGGCCCTTGGTTCCCCCATTATGATTTTGAACGGAGCTGCTGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCCTCTGCAAGGGGGACAGGCCAGGCCCACCAGCCCGGTTCCCGCGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCAAACGCGAGCAAGGCTCCTTGGCACCCAGGCCTGTGCCGGCTTCACGTGGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGCACGTCTGCGGAACCAATTCTTCGATACCTGGGCCATGAACGATGACACCGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGAGGACCTCAGGGTTCCTGGAGATTCCTGGAGTGGAAGTCAATGCCCCGGCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTTGCTCAGCTTCCCCGCCATGGGCATCTCGTTTTTCCACGCCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                           sapiens
                           50.9%;
77.8%;
              Score 999; DB 9; 1
Pred. No. 3.3e-305;
0; Mismatches 165;
                                                                                                                                                                                                                                                                                                                                     AND
                                                                                                                                                                                                                                                                                                                                     POLYPEPTIDES
                                     Length 8180;
              Indels
               214;
              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                     3193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2653
              'n
á
                         밁
                                               Ś
                                                                           В
                                                                                             ð
                                                                                                                           밁
                                                                                                                                                   Ś
                                                                                                                                                                               밁
                                                                                                                                                                                                S
                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
  1079
                                                  1021
                                                                             2654
                                                                                                                              2594
                                                                                                                                                                               2534
                                                                                                                                                                                                                                2474
                                                                                                                                                                                                                                                                                 2414
                                                                                                                                                                                                                                                                                                                                   2354
                                                                                                                                                                                                                                                                                                                                                                                     2294
                                                                                                                                                                                                                                                                                                                                                                                                                                        2234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1697
                                                                                                   961
                                                                                                                                                       901
                                                                                                                                                                                                      841
                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                _
                                              AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCC--
                                                                                           TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                              CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                             CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACATCCACCACATCGACCTGGACGTGAGGACGACTCTCCGGAACCATGTCTTTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                           AAGCATCTTAGGGCCTCTACGAAGAAACTAACAAGGAAGCAAGGGGACCTGCCACCCCCA
                                                                             TGGGCACGTCTGCGGAACCAATTCTTCGATACCTGGGCCATGAACGATGACACCGTGCTC
                                                                                                                                                      ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                               CTCACCCTGCGCCTGTGGGACGTGTATTTGGTGGAAGGAGAACAGGTGTTGATGCCAATA
                                                                                                                                                                                                                                                                                   CTGCCAGGATTCCACAGCCCAAATGGTGGGACAGTCCAGGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                     CTGCCTGAGGACGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                    AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCACCGCCTTGTTCCTCCTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGGACATGGTAGAGAATGCAGATAGTTTGCAGGCACAGGAGCGGAAGGACATACTTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAATTCCCATGAACATCCGGGGCCCGGTGTGGTCAGTCCTCCTGAACATTCAGGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGCTGGGAGAATGGGAGACATATAAGCACAGTAGCAAACTCATAGATCGAGTGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGTATGACAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCCTGAGCCCCGTTGGA
                                                                           2713
                                                                                                     1020
                                                                                                                              2653
                                                                                                                                                                               2593
                                                                                                                                                                                                                                                                                                           780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                120
  1078
                                                   1078
                                                                                                                                                       960
                                                                                                                                                                                                                                2533
                                                                                                                                                                                                                                                                                 2473
                                                                                                                                                                                                                                                                                                                                                                                     2353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1816
                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                   2413
                                                                                                                                                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                                                                                                         2293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
```

Query Match 50.9%; Score 999; DB 7; Length 8201; Best Local Similarity 77.8%; Pred. No. 3.3e-305; Matches 1332; Conservative 0; Mismatches 155; Indels 214; Gaps 2;	US-10-283-975A-272	; LENGTH: B201 ; TYPE: DIA · ORGANISM· HIMAN	272	P 20	; PRIOR FILING DATE: 2001-10-30; PRIOR APPLICATION NUMBER: 60/341,012		; PRIOR FILING DATE: 2001-10-30 ; PRIOR APPLICATION NUMBER: 60/338,997		CURRENT APPLICATION NUMBER: US/10/283,975A	· .	NFOR N	US-10-283-975A-272 ; Sequence 272, Application US/10283975A		Db 3374 CACCTGCTGGCAGGCTGAACACTGCGGAGAG 3404	QY 1470 CCCCTGCTGGCAGGCTGAACACCCTGCGGAG 1500	Db 3314 CCATTATGATTTTGAACGGAGCTGCTGGGTCCGTGCCATATCCCAGGAGGACCAGCTGGC 3373	Qy 1410 CCATTATGATTTCAGACAGAGCTGCTGGGTCCGTGCCATATCCCCAGGAGGACGACCAGCTGGC 1469	Db 3254 GGAGTGGAAGTCAATGCCCCGGCTCCCAACGGACCTGGATATAGGGGGCCCTTGGTTCCC 3313	OY 1350 GCAGTGGAACTCCATGCCCCGCCTCCCAACGGACCTGGACGTAGAGGGCCCTTTGGTTCCG 1409	3194 TCAGGGTGTGCCCAGCCTGGCCCTGGCTCAGGGACCTCAGGGTTCCTGGAGATTCCT	Qy 1290 TCAGGGTGTGCCCAGCCCGGCCCTGGCTCAGGGAGGACCTCAGGGTTCCTGGAGATTCCT 1349	3134	1230 TCGTTCTTCCACACCCTGTCCTGGTGGGGCTGTCCGGGAAGACACCTACCCTGTGGGCAC	Db 3074 TCCAGGCCCACTACCAGCGGCCCATTTGCTCAGCTTCCCGGCATCGGCATC 3133	11.70 正のうならうできないできないできないできないできないできないできないできないできないできない	3014 CAGGCCTGTGCCGGCTTCACGTGGTGGGAAAGACCCTCTGCAAGGGGTATAGGCAGGC	Qy 1110 CAGGCCTGTGCCGGCTTCACGTGGCGGGAAGACCCTCTGCAAGGGGGACAGGCAGG	2954 ACACAGAGACCCCAAGGACTCCAGAGATGCAGCCAAACGCGAGCAAGGGTCCTTGGCACC	Qy 1079 109	Db 2894 ACCCCTCCCTCTGGGATCAGCAGACTACAGGCGTGTCGTCAGTGTCAGACCACAGGGGCC 2953	Qy 1079 1078	Db 2834 GGGGCAGTCCCAGGAGCCCACCCATGCCCCAACGGCTTCCCCCATGCCAGGCAGCACAC 2893	Qy 1079 1078	Db 2774 GGCCCAACAGCCCTGGGACGAAGGTGTGTGGCAGGAAGCCCCCAGCCAG
D 4		g 29		B 8	Db		gb				מם	Q	рb	γ	Db	γQ	Db :	γο	ם מם			&		Q E	P .	9	Db	S	Дb	Ş	Db	γQ		Q
AAGCATCTTAGGGCCTCTACGAAGAAACTAACAAGGAAGCAAGGGGACCTGCCACCCCA	21 PARGUATUCTTAGGGGCCTCTTATGAAGAAAGGAAAGGAAAGG	1020 TIGGGCACGTTTTTTGCAACCGGTTCGTTGATTGATTGCTGGCCAGGATGAGACACCGTTGTGCTC		901 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGGCGCCTCACGAAGAACGTCCAGGTGTGGCCCG 960	2534 CTCACCCTGCGCCTGTGGGACGTGTATTTGGTGGAAGGAGAACAGGTGTTGATGCCAATA 2593	CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA	GGGCAGTGTGCCTTAGGCTTCTCCGGAACCTGATTGACCGGATCTCTCTC	GGGCAGTGTTCCCCGTTAGGCTGCCTCATCCGGATATTGATTG	CHIGIGALHCCCHHAILCHCHHANCHCHIGIGACHICHGANCHNAGANCHNAGANCH	CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCCATCAGGACAAGAAAGA	2354 CTGCCAGGATTCCACAGCCCAAATGGTGGGACAGTCCAGGGGCTCCAAGACCAACAGGAG 2413	661 CTGCAGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG 720	2294 CTGCCTGAGGACGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC 2353	601 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC 660	2234 AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCACCGCCTTGTTCCTTCC	541 AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT 600	2174 GATCGATATGGAGCCAAGCAGAGGGAACTATTCTACATCCTCCTGGCCTATTCGGAGTAT 2233	481 GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 540	2114 CACATCCACCACTCGACCTGGACGTGAGGACGACTCTCCGGAACCATGTCTTTTAGG 2173		2054 AAGTTGAAAAAACCCCGGAAGATACCAGATCATGAAGGAGAGGGGCAAGAGGTCATCTGAA 2113	361 AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG 420	GGAATTCCCATGAACATCCGGGGCCCGGTGTGGTCAGTCCTCCTGAACATTCAGGAAATC	GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG		ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG	1874 ACTGCACGGGAGGCGAAGAAAATTCGGCGGGAGATGACACGAACGA		1817 ATCAACAGCATTGATCGTTTTGGCATTTTGCATGAGACCGAGCTGCCTCCTGTG 1873	121 AGCTAÇAAÇAAÇAAÇGTCGATÇATTTGGGGATTGTAÇATGAGAÇGGAGÇTGÇÇTÇÇTÇT 180	1757 AAGTATGACAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCCGAGCCCGTTGGA 1816	61 AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA 120	1697 ATGGACATGGTAGAGAATGCAGATAGTTTGCAGGCACAGGAGCGGAAGGACATACTTATG 1756	1 ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG 60

0 CCCCTGCTGGCAGGCTGAACACCCTGCGGAG 1500 	Qy 1470 Db 3374	- 0
4 CCATTATGATTTTGAACGGAGCTGCTGGGTCCGTGCCATATCCCAGGAGGACCAGCTGGC 3373	Db 3314	-
0 CCATTATGATTTCAGACAGAGCTGCTGGGTGCCGTGCCATATCCCCAGGAGGACCAGCTGGC 1469	Qy 1410	_
4 GGAGTGGAAGTCAATGCCCCGGCTCCCAACGGACCTGGATATAGGGGGGCCCTTGGTTCCC 3313	Db 3254	н
0 GCAGTGGAACTCCATGCCCCGCCTCCCAACGGACCTGGACGTAGAGGGCCCTTGGTTCCG 1409	Qу 1350	_
4 TCAGGGTGTGCCCAGCCTGGCCCTGGCTCAGGGACCTCAGGGTTCCTGGAGATTCCT 3253	Db 3194	-
0 TCAGGGTGTGCCCAGCCCGGCCCTGGCTCAGGGAGGACCTCAGGGTTCCTGGAGATTCCT 1349	Qy 1290	_
4 TCGTTTTTCCACGCCCTGTCCTGGTGGGGCTGTCCGGGAAGACACGTACCCTGTGGGCAC 3193	Db 3134	_
0 TCGTTCTTCCACACCCTGTCCTGGTGGGGCTGTCCGGGAAGACACCTACCCTGTGGGCAC 1289	Qy 1230	_
4 TCCAGGCCCACCAGCCCAGTTCCAGCGCCCATTTGCTCAGCTTCCCCGCCATGGGCATC 3133	Db 3074	_
0 TCCAGGCCCACCAGCCCGGGTTCCCGCGGGCCCATTTGGTCAGCTTCCCCCGGCCACGGGCACC 1229	Qy 1170	_
4 CAGGCCTGTGCCGGCTTCACGTGGTGGGAAGACCCTCTGCAAGGGGTATAGGCAGGC	Db 3014	-
0 CAGGCCTGTGCCGGCTTCACGTGGCGGGAAGACCCTCTGCAAGGGGGGACAGGCAGG	Qy 1110	_
4 ACACAGAGACCCCAAGGACTCCAGAGATGCAGCCAAACGCGAGCAAGGGTCCTTGGCACC 3013	Db 2954	-
9CAGCCAAACCCGAGCAAGGGTCGTCGGCATC 1109	Qy 1079	_
4 ACCCCTCCCTCTGGGATCAGCAGACTACAGGCGTGTCGTCAGTGTCAGACCACAGGGGGCC 2953	Db 2894	-
9 1078	Qy 1079	_
4 GGGGCAGTCCCAGGAGCCACCCACCATGCCCCAACGGCTTCCCCCATGCCAGGCAGCACAC 2893	Db 2834	_
9 1078	Qy 1079	_
4 GGCCCAACAGCCCTGGGACGAAGGTGTGTGGCAGGAAGCCCCCAGCCAG	Db 2774	_
9 1078	Qy 1079	_

CARRY MENER CARRY MAN

Search completed: April 5, 2006, 14:28:39 Job time: 1629 secs

This Page Blank (uspto)

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OM nucleic - nucleic search, using sw model
    იიი
                                                 იიი
                                                                                                                                                  იი
                                                                                                                                                                                                                                         0 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9:
                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB DB
   358.6
301.6
300.6
300.2
300.2
300.2
300.2
300.2
297.2
297.2
297.2
294.2
294.2
294.2
294.2
294.2
                                                                                                                                                                                                                                                                                 Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                      IDENTITY NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-10-071-838-1
1964
                                                                                                                                                                                                                                                                                  Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          April 5, 2006, 14:20:23 ; Search time 1321 Seconds (without alignments) 5947.837 Million cell updates/sec
                                                                                                                                                                                                                                                                                                  Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9267905 seqs, 2000278028 residues
   | KIIDS5/ptodata/1/pubpna/US06_NEW_PUB.seq:*
| SIIDS5/ptodata/1/pubpna/US06_NEW_PUB.seq:*
| SIIDS5/ptodata/1/pubpna/US07_NEW_PUB.seq:*
| SIIDS5/ptodata/1/pubpna/US07_NEW_PUB.seq:*
| SIIDS5/ptodata/1/pubpna/US09_NEW_PUB.seq:*
| SIIDS5/ptodata/1/pubpna/US09_NEW_PUB.seq:*
| SIIDS5/ptodata/1/pubpna/US10_NEW_PUB.seq:*
| SIIDS5/ptodata/1/pubpna/US10_NEW_PUB.seq:*
| SIIDS5/ptodata/1/pubpna/US10_NEW_PUB.seq:*
| SIIDS5/ptodata/1/pubpna/US10_NEW_PUB.seq:*
| SIIDS5/ptodata/1/pubpna/US11_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Published_Applications_NA_New: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  atggacgtggtagaggtcgc.....aaatgtttcctgttgaaatg 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Copyright
                                            Length
                                            GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                                                                                                                                                                                                    멂
                                                                                                                                   9
10
10
                                                                                                                                                                                                                        6 US-09-925-065A-506682
6 US-09-925-065A-506683
14 US-11-121-086-104
14 US-11-121-086-104

WS-09-925-065A-19863

US-09-925-065A-198637

US-09-925-065A-198637

US-10-301-480-287418

US-10-301-480-285677

                                                                                                                                                                                                                                                                                   ä
                          Sequence 506682,
Sequence 104, App
Sequence 198638,
Sequence 198636,
Sequence 198637,
Sequence 287418,
Sequence 20827,
Sequence 173389,
Sequence 273389,
Sequence 273389,
Sequence 2878373,
Sequence 198635,
Sequence 2878373,
                                                                                                                                                                                                                                                                                 Description
                吊
```

```
Sequebde 506682, Application US/09925065A

Publication No. US20040181048A1

GEMERAL INFORMATION:
APPLICANT: Wang, David G.

TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nucleotide Polymorphisms in the Human Genome
FILE REFERENCE: 108627.135

CURRENT APPLICATION NUMBER: US/09/925,065A

CURRENT FILING DATE: 2001-08-08

PRIOR APPLICATION NUMBER: US 60/243,096

PRIOR APPLICATION NUMBER: US 60/252,147

PRIOR FILING DATE: 2000-10-24

PRIOR APPLICATION NUMBER: US 60/250,092

PRIOR APPLICATION NUMBER
                            Ş
                                                                        문
                                                                                                      S
                                                                                                                                                                                                                         ; TYPE: DNA; Homo sapiens US-09-925-065A-506682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               00000
                                                                                                                                               Query Match
Best Local Similarity
Matches 358; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1079 CAGCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGA 1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             281
280.6
280.6
280.2
280.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          293.8
293.8
293.8
293.6
293.6
292.3
292.6
292.2
292.2
292.2
292.2
285.2
285.8
281.8
281.8
                                                                        359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ø65A-506682/c
AGACCCTCTGCAAGGGGGACAGGCCAGGCCCCTCCAGGCCCAGCCCGGTTCCCGCGGC
                                                                        CAGCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGA
                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44673
44673
44673
4673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      479
479
479
475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44779
44779
44779
44779
44779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6 6 6 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               თ თ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-09-925-065A-198614
US-10-301-480-290201
US-10-301-480-290202
US-10-301-480-903611
US-09-925-065A-585252
US-09-925-065A-206786
US-09-925-065A-206786
US-09-925-065A-206786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US 09-925-065A-201702

US-09-925-065A-206784

US-09-925-065A-206785

US-09-925-065A-118036

US-09-925-065A-206789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0 US-10-301-480-294545

0 US-10-301-480-907953

0 US-10-301-480-264965

0 US-10-301-480-879374

0 US-10-301-480-879374

US-09-925-065A-173398

US-09-925-065A-173388

0 US-10-301-480-294543

0 US-10-301-480-294547

0 US-10-301-480-294547

0 US-10-301-480-907955
                                                                                                                                                 Pred. No. 3.8e
1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ALIGNMENTS
                                                                                                                                               e 358.6; DB 6;
. No. 3.8e-89;
ismatches 0;
                                                                                                                                                                                     Length
                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 294545,
Sequence 907953,
Sequence 907954,
Sequence 173374,
Sequence 173388,
Sequence 173389,
Sequence 173389,
Sequence 294543,
Sequence 294547,
Sequence 2907956,
Sequence 2907956,
Sequence 290202,
Sequence 290201,
Sequence 290201,
Sequence 903611,
Sequence 903610,
Sequence 903611,
Sequence 903611,
Sequence 903611,
Sequence 903611,
Sequence 201702,
Sequence 206786,
Sequence 201702,
Sequence 201702,
Sequence 201703,
Sequence 201703,
Sequence 201704,
Sequence 201708,
                                                                                                                                                 ٥,
                                                                                                                                                   Gaps
                                                                        300
```

```
CURRENT APPLICATION NUMBER: US/09/925,065A
CURRENT FILING DATE: 2001-08-08
PRIOR APPLICATION NUMBER: US 60/243,096
PRIOR FILING DATE: 2000-10-24
PRIOR APPLICATION NUMBER: US 60/252,147
PRIOR FILING DATE: 2000-11-20
PRIOR APPLICATION NUMBER: US 60/250,092
PRIOR APPLICATION NUMBER: US 60/261,766
PRIOR FILING DATE: 2000-11-30
PRIOR FILING DATE: 2001-01-16
PRIOR APPLICATION NUMBER: US 60/261,766
PRIOR APPLICATION NUMBER: US 60/289,846
PRIOR FILING DATE: 2001-05-09
NUMBER OF SEQ ID NOS: 957086
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 506683
LENGTH: 378
TYPE: DNA
ORGANISM: Homo Bapiens
US-09-925-065A-506683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 2
US-09-25-065A-506683/c
; Sequence 506683, Application US/09925065A
; Publication No. US20040181048A1
; GENERAL INFORMATION:
문
                             δ
                                                                 밁
                                                                                                 δ
                                                                                                                                         밁
                                                                                                                                                                   S
                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Wang, David G.
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nucleotide Polymorphisms in the Human Genome
FILE REFERENCE: 108827.135
                                                                                                                                                                                                                                                                                                                                                                                                                                            Match 18.3%;
Local Similarity 99.7%;
                                                                                                                                                                                                                                                 1199
                                                                                                                                                                                                                                                                                                                     1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1199
                                  1379
                                                                                                      1319
                                                                                                                                                                          1259
                                                                                                                                                                                                                                                                                                                                                                                           1079 CAGCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            179
                                                                   119
                                                                                                                                         179
                                                                                                                                                                                                                                                                                                                                                        359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               239
                                                                                                                                                                                                              239
                                                                                                                                                                                                                                                                                    299
                                                                                                                                                                                                                                                                                                                                                                                                                            358;
 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    59
                    CCATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGG
                                                                                                                                                                                                                                                                                                                                                        CAGCCAAACCCGAGGAAGGGTCGTCGGCATCCAGGCCTGTGCCRGCTTCACGTGGCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAA 1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGTCCGGGAAGACCTACCCTGTGGGCACTCAGGGTTGCCCAGCCCGGCCCTGGCTC 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTC 1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGG 1258
                                                                                         AGGGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAA 1378
                                                                                                                                           CTGTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTC
                                                                                                                                                                                                                                                                                                                       CGGACCTGGÁCGTAGAGGGCCCTTGGTTCCGCCRTTATGATTTCAGACAGAGCTGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAA 60
   AGGGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAA
                                                                                                                                                                            CTGTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTC
                                                                                                                                                                                                                                                                                  AGACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCGCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 358.6; DB 6
Pred. No. 3.8e-89;
                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                               Indele
                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                       60
                                                                                                                                                                            1318
                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                 1258
                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                       1198
                                                                                                                                                                                                                                                                                                                                                          300
                                                                                                                                                                                                                                                                                                                                                                                             1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                             120
```

```
Sequence 104, Application US/11121086
Publication No. US20050266459A1
GENERAL INFORMATION:
APPLICANT: POULSEN, TIM S.
APPLICANT: NIELSEN, KIRSTEN V.
APPLICANT: NIELSEN, KIRSTEN V.
TITLE OF INVENTION: NUCLEIC ACID PROBES AND FILE REFERENCE: 09138.6000-00000
CURRENT APPLICATION NUMBER: US/11/121,086
CURRENT FILING DATE: 2005-05-04
PRIOR FILING DATE: 2004-05-04
VIMMBER OF SEQ ID NOS: 107
RESULT 4
US-09-925-065A-198638
                                                                                               Ś
                                                                                                                                   밁
                                                                                                                                                          S
                                                                                                                                                                                                 밁
                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                                                                                                                       닭
                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 3
US-11-121-086-104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-11-121-086-104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn version 3.3 SEQ ID NO 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 15.4%;
Best Local Similarity 80.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 186442
                                                                   91311 GAAATG 91316
                                                                                                                                                                                                     91191
                                                                                                                                                                                                                                                                                                                                                                                                       91011
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90891
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         90831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          389;
                                                                                                                                                                                                                      CAGCACCCCCAGGCCCCACGACCATCGTTCTGAATTCTGACGACACCGTGAGCCTGCC-TT 1898
                                                                                                                                                                                                                                                                                        GATTCAGAGATGGAACACACAGACCCGAGATCACAAAGCCAACCATGCCCGGGCCCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                               ATTTCCCTAGGCTTAACAACCCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTTGGTTAAAC 1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTTGCGGGCCTCCACTTGG 1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGACTAGCTCGCCCTACAGTGCACACAGCACTGCTTCCAACCAGGGCACCCCGTTCACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGAG 1561
                                                                                                    GAAATG 1964
                                                                                                                                                                                                       CATTCAAAGATAGAACACCAGCCCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCC
                                                                                                                                                                                                                                                                                                                                                             TTATGAAAATGTATTAAGA---------AAGAGTGCAGCTCGAGAGA 1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATGTTCTCAGTTCCTAGAGCTTCTAGAACCATCTGGGCCAGGGCTTATGGTTGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGATA 1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTAGGGACGTGCAGCAGTGTGCTCCCACCTTGAAGCCTTTGGCTCTGCCACCTCTACTTGG
                                                                                                                                   TTATGAAAATTTATTAAGATATGACTTACATCCCTGCATGTAAGTGTTCAGCTCAAAAGT 91130
                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 301.6; DB 14;
Pred. No. 3.2e-72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROBES AND NUCLEIC ACID ANALOG PROBES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 186442;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                         1839
                                                                                                                                                                                                                                                                        91190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          91010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            90890
                                                                                                                                                                                                        91250
```

Sequence 198638, Application US/09925065A Publication No. US20040181048A1 GENERAL INFORMATION:

APPLICANT: Wang, David G.
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nucleotide Polymorphisms in the Hum

Human Genome

REFERENCE: 108827.135

```
Sequence 19836, Application US/09925065A

Publication No. US20040181048A1

GENERAL INFORMATION:
APPLICANT: Wang, David G.

TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nucleotide Polymorphisms in the Human Genome
FILE REFERENCE: 108827.135

CURRENT APPLICATION NUMBER: US/09/925,065A

CURRENT FILING DATE: 2001-08-08

PRIOR APPLICATION NUMBER: US 60/243,096

PRIOR FILLING DATE: 2000-10-24

PRIOR FILLING DATE: 2000-11-20

PRIOR APPLICATION NUMBER: US 60/252,147

PRIOR APPLICATION NUMBER: US 60/250,092

PRIOR APPLICATION NUMBER: US 60/250,092

PRIOR FILLING DATE: 2000-11-30

PRIOR APPLICATION NUMBER: US 60/261,766

PRIOR FILLING DATE: 2001-01-16

PRIOR FILLING DATE: 2001-01-16

PRIOR FILLING DATE: 2001-03-16

PRIOR FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
US-09-925-065A-198636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-925-065A-198638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: US 60/243,096
PRIOR FILING DATE: 2000-10-24
PRIOR APPLICATION NUMBER: US 60/252,147
PRIOR PRILING DATE: 2000-11-20
PRIOR APPLICATION NUMBER: US 60/250,092
PRIOR PILING DATE: 2000-11-30
PRIOR PILING DATE: 2001-11-30
PRIOR PILING DATE: 2001-01-16
PRIOR PILING DATE: 2001-01-16
PRIOR APPLICATION NUMBER: US 60/261,766
PRIOR PILING DATE: 2001-05-09
PRIOR PILING DATE: 2001-05-09
PRIOR FILING DATE: 2001-05-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 957086
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 198638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 15.3%;
Best Local Similarity 98.7%;
Matches 303; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/925,065A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ь
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGATTCAGAGATGGAACACACCAGACCCCAGATCACAAAGCCCATGCCCAGCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGAAATG 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGATTCAGAGATGGAACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2001-08-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 300.6; DB 6;
Pred. No. 5.3e-73;
0; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

```
CURRENT APPLICATION NUMBER: US/09/925,065A
CURRENT FILING DATE: 2001-08-08
PRIOR APPLICATION NUMBER: US 60/243,096
PRIOR PELING DATE: 2000-10-24
PRIOR PELING DATE: 2000-11-20
PRIOR PELING DATE: 2000-11-20
PRIOR PELING DATE: 2000-11-30
PRIOR PELING DATE: 2000-11-30
PRIOR PELING DATE: 2001-01-16
PRIOR PELING DATE: 2001-01-16
PRIOR PELING DATE: 2001-01-16
PRIOR PELING DATE: 2001-01-05-09
PRIOR APPLICATION NUMBER: US 60/261,766
PRIOR PELING DATE: 2001-05-09
PRIOR PELING DATE: 2001-05-0
                              Ś
                                                                                 밁
                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                           ; ORGANISM: Homo sapiens US-09-925-065A-198637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-925-065A-198637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-925-065A-198636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 198637, Application US/09925065A Publication No. US20040181048A1 GENERAL INFORMATION:
                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches 302;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Wang, David G.
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nucleotide Polymorphisms in the Human
FILE REFERENCE: 108827.135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LENGTH: 477
TYPE: DNA
ORGANISM: Homo sapiens
1958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                 \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGAAATG 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGATTCAGAGATGGAACACCAGACCCCAGATCACAAAGCCAACCATGCCCRGCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGATTCAGAGATGGAACACCAGACCCCAGATCACAAAGCCAACCATGCCCCAGCCCCT 1837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                            15.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15.3%;
                                                                                                                                                                                    1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1; Mismatches
                                                                                                                                                                                    Score 300.2; DB 6;
Pred. No. 6.8e-73;
1; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 300.2; DB 6 Pred. No. 6.8e-73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6,
                                                                                                                                                                                                                                       Length 477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   477;
                                                                                                                                                                                      <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>.</u>
                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                     1717
                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
```

```
APPLICANT: Wang, David G.
TITLE OF INVENTION: Identifiction and Mapping of
TITLE OF INVENTION: in the Human Genome
FILE REFERENCE: 108827.137
CURRENT APPLICATION NUMBER: US/10/301,480
CURRENT FILING DATE: 2002-11-21
PRIOR APPLICATION NUMBER: US 10/215,598
PRIOR FILING DATE: 2002-08-09
PRIOR FILING DATE: 2002-08-09
PRIOR APPLICATION NUMBER: US 60/311,695
PRIOR FILING DATE: 2001-08-10
NUMBER OF SEQ ID NOS: 1226818
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 287418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 7

US-10-301-480-287418/c

; Sequence 287418, Application US/10301480

; Publication No. US20060057564A1

; GENERAL INFORMATION:
 RESULT 8
US-10-301-480-900827/c
                                                                                                               밁
                                                                                                                                   S
                                                                                                                                                                   밁
                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                               5
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TYPE: DNA
; ORGANISM: Homo sapien
US-10-301-480-287418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH: 477
                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
                                                                                   1958
                                                                                                                                                                                                                                                                                                            1718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1958
                                                                                                                                          1898
                                                                                                                                                                                                 1838
                                                                                                                                                                                                                                                       1778
                                                                                                                                                                                                                                                                                                                                                        1898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1838
                                                                                                                                                                                                                                                                                                                                                                                             302;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                           357
                                                                                                                                                                                                                                                                                 417
                                                                                                                                                                                                                                                                                                                                        477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                         177
                                                                                                               237
                                                                                                                                                                      297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                   TGAAATG 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGATTCAGAGATGGAACACACCAGACCCCAGATCACAAAGCCCATGCCCAGCCCCT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGATTCAGAGATGGAACACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCT 1837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGAAATG 171
                                                                                   TGAAATG 1964
                                                                                                                                     GAGATTCAGAGATGGAACACCAGACCCAGATCACAAAGCCAACCATGCCCAGCCCCT
                                                                                                                                                                                                                                                       GAGATTCAGAGATGGAACACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCT 1837
                                                                                                                                                                                                                                                                                                                                        TGAAATG 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                         15.3%;
                                                                                                                                                                                                                                                                                                                                                                                            -:
                                                                                                                                                                                                                                                                                                                                                                                           Score 300.2; DB 10;
Pred. No. 6.8e-73;
1; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                      DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of Single Nucleotide Polymorphisms
                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                             <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                    358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                  178
                                                                                                                                                                      238
                                                                                                                                                                                                                             298
FILE REPERENCE: 108827.135

CURRENT APPLICATION NUMBER: US/09/925,065A

CURRENT FILING DATE: 2001-08-08

PRIOR APPLICATION NUMBER: US 60/243,096

PRIOR FILING DATE: 2000-10-24

PRIOR APPLICATION NUMBER: US 60/252,147

PRIOR FILING DATE: 2000-11-20

PRIOR APPLICATION NUMBER: US 60/250,092

PRIOR FILING DATE: 2000-11-30

PRIOR FILING DATE: 2001-01-16

PRIOR FILING DATE: 2001-05-09

NUMBER OF SEQ ID NOS: 957086

SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                               RESULT 9
US-09-925-065A-173389
                                                                                                                                                                                                                                                    Sequence 173389, Application US/09925065A Publication No. US20040181048A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Sir Matches 302;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                         APPLICANT: Wang, David G.
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nucleotide Polymorphisms in the Human Genome
                                                                                                                                                                                                                                                                                                                                                                                1958
                                                                                                                                                                                                                                                                                                                                                                                                                                       1898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      477
                                                                                                                                                                                                                                                                                                                                                        177
                                                                                                                                                                                                                                                                                                                                                                                                            237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   297
```

```
PRIOR APPLICATION NUMBER: US 10/215,598
PRIOR FILING DATE: 2002-11-21
PRIOR FILING DATE: 2002-08-09
PRIOR APPLICATION NUMBER: US 60/311,695
PRIOR FILING DATE: 2001-08-10
PRIOR FILING DATE: 2001-08-10
PRIOR FILING DATE: 2001-08-10
SOPTWARE: PastSEQ for Windows Version 4.0
SEQ ID NO 900827
LENGTH: 470
                                                                                                                                                                                                                                                                                                                                                                                                                                           ; LENGTH: 477
; TYPE: DNA
; ORGANISM: Homo sapien
US-10-301-480-900827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Wang, David G.
APPLICANT: Wang, David G.
TITLE OF INVENTION: Identifiction and Mapping
TITLE OF INVENTION: in the Human Genome
FILE REFERENCE: 108827.137
CURRENT APPLICATION NUMBER: US/10/301,480
CURRENT FILING DATE: 2002-11-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 900827, Application US/10301480 Publication No. US20060057564A1
                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                            GAGATTCAGAGATGGAACACACAGACCAGACCAGATCACAAAGCCAAGCCATGCCCCT
                            TGAAATG
                                                                                                                                                                                                                                                                                 GAGATTCAGAGATGGAACACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCT
TGAAATG 171
                                                             Conservative
                             1964
                                                                                                                                                                                                                                                                                                                                                                                              15.3%;
98.4%;
                                                                                                                                                                                                                                                                                                                                                                              Score 300.2; DB 1
Pred. No. 6.8e-73;
1; Mismatches 4
                                                                                                                                                                                                                                                                                                                                                                                                               DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of Single Nucleotide Polymorphisms
                                                                                                                                                                                                                                                                                                                                                                                 4.
                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                               477;
                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                           1897
                                                                                                                                                                                                                                                       358
                                                                                                                           238
                                                                                                                                                                                          298
                                                                                                                                                                                                                        1837
                                                                                                                                                                                                                                                                                                                    418
                                                                                                                                                                                                                                                                                                                                                                                 0
```

```
Sequence 264964, Application US/10301480

Publication No. US20060057564A1

GENERAL INFORMATION: G.

ITILE OF INVENTION: Identifiction and Mapping of Single Nucleotide Polymorphisms

TITLE OF INVENTION: in the Human Genome

FILE REFERENCE: 108827.137

CURRENT APPLICATION NUMBER: US/10/301,480

CURRENT FILING DATE: 2002-01-21

PRIOR APPLICATION NUMBER: US 10/215,598

PRIOR FILING DATE: 2001-08-09

PRIOR APPLICATION NUMBER: US 60/311,695

PRIOR FILING DATE: 2001-08-10

NUMBER: OF SEQ ID NOS: 1226818

SOFTWARE: FastSEQ for Windows Version 4.0
 밁
               ક
                                        밁
                                                           Ś
                                                                                  밁
                                                                                                     á
                                                                                                                                                                   ; ORGANISM: Homo sapien US-10-301-480-264964
                                                                                                                                                                                                                                                                                                                                                                                  RESULT 10
US-10-301-480-264964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-925-065A-173389
                                                                                                                                     Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match 15.1%;
Best Local Similarity 98.4%;
Matches 299; Conservative
                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 173389
                                                                                                                                                                                        LENGTH: 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ENGTH:
                                                                                                                                      Local Similarity
                    1781
                                                                                             1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1961 AATG 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1781 ATTCAGAGATGGAACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCC
 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                         61
                                                                                                                            299;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                   μ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ш
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTCAGAGATGGAACACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCC 1840
                                                    ATTCAGAGATGGAACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                           304
                                                                                                                                     15.1%;
                                                                                                                         Score 297.2; DB 10;
Pred. No. 4.7e-72;
1; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 297.2; DB 6;
Pred. No. 4.6e-72;
1; Mismatches 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                             Length
                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                           Gaps
180
                                        120
                                                             1780
                                                                                                      1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1780
                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               120
                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
```

```
GENERAL INFORMATION:

APPLICANT: WANG, David G.

TITLE OF INVENTION: Identifiction and Mapping of

TITLE OF INVENTION: in the Human Genome

FILE REFERENCE: 108827.137

CURRENT APPLICATION NUMBER: US/10/301,480

CURRENT FILING DATE: 2002-11-21

PRIOR APPLICATION NUMBER: US 10/215,598

PRIOR APPLICATION NUMBER: US 60/311,695

PRIOR FILING DATE: 2001-08-10

NUMBER OF SEQ ID NOS: 1226818

SOFTWARE: FRASTSEQ for Windows Version 4.0

SEQ ID NO 878373

LENGTH: 477
RESULT 12
US-10-301-480-285677/c
US-10-301-480-285677, Application US/10301480
; Sequence 285677, Application US/10301480
; Publication No. US20060057564A1
; GENERAL INFORMATION:
; APPLICANT: Wang, David G.
; TITLE OF INVENTION: Identifiction and Mapping of Single Nucleotide Polymorphisms
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 11
US-10-301-480-878373
; Sequence 878373, Application US/10301480
; Publication No. US20060057564A1
                                                                                                                                  ঠ
                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                            Ś
                                                                                                               밁
                                                                                                                                                           밁
                                                                                                                                                                                                        밁
                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TYPE: DNA
; ORGANISM: Homo sapien
US-10-301-480-878373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                  Matches 299;
                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                Local
                                                                                                                                    1961
                                                                                                                                                                                 1901
                                                                                                                                                                                                                                1841
                                                                                                                                                                                                                                                                             1781
                                                                                                                                                                                                                                                                                                                  1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1961 AATG 1964
                                                                                                               301
                                                                                                                                                           241
                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                    \vdash
                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                             AATG 304
                                                                                                                                    AATG 1964
                                                                                                                                                                                                                                                                       ATTCAGAGATGGAACACACACAGACCCCAGATCACAAAGCCATGCCCAGCCCCTCCC
                                                                                                                                                                          ATTCAGAGATGGAACACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCC
                                                                                                                                                                                                                                                                                                                                                   AATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                             15.1%;
                                                                                                                                                                                                                                                                                                                                                                                                Score 297.2; DB 1
Pred. No. 4.7e-72;
1; Mismatches 4
                                                                                                                                                                                                                                                                                                                                                                                                                       DB 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                  4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Single Nucleotide Polymorphisms
                                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                       Length 477;
                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  240
                                                                                                                                                                                                                                                                             1840
                                                                                                                                                                                                                                                                                                                            1780
                                                                                                                                                                                                                                                                                                                                                                           1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1900
                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                     120
                                                                                                                                                                                                                                                                                                                                                   60
                                                                                                                                                                                                                                                                                                                                                                                                 0
```

```
FILE REPERENCE: 108827.137
CURRENT APPLICATION NUMBER: US/10/301,480
CURRENT FILING DATE: 2002-11-21
PRIOR APPLICATION NUMBER: US 10/215,598
PRIOR FILING DATE: 2002-08-09
PRIOR FILING DATE: 2001-08-10
PRIOR FILING DATE: 2001-08-10
NUMBER: FILING DATE: 12061-8
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 285677
LENGTH: 476
TYPE: DNA
8
                                                                        ; TYPE: DNA
; ORGANISM: Homo sapien
US-10-301-480-899086
                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                RESULT 13
US-10-301-480-899086/c
                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; TYPE: DNA; Homo sapien; ORGANISM: Homo sapien US-10-301-480-285677
                     Query Match
Best Local Similarity
Matches 296; Conservat
                                                                                                        APPLICANT: Wang, David G.

TITLE OF INVENTION: Identifiction and Mapping of Single Nucleotide Polymorphisms
TITLE OF INVENTION: In the Human Genome
FILE REFERENCE: 108027.137
CURRENT FILING DATE: 2002-1121
PRIOR APPLICATION NUMBER: US/10/301,480
CURRENT FILING DATE: 2002-108-09
PRIOR APPLICATION NUMBER: US 10/215,598
PRIOR FILING DATE: 2002-08-09
PRIOR APPLICATION NUMBER: US 60/311,695
PRIOR FILING DATE: 2001-08-10
NUMBER OF SEQ ID NOS: 1226818
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 899086
LENGTH: 476
                                                                                                                                                                                                                                                                            Sequence 899086, Application US/10301480 Publication No. US20060057564A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                        1904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1964 G 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          356
                                                                                                                                                                                                                                                                                                                                                                                                                 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            476
                                                                                                                                                                                                                                                                                                                                                                 176 G 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         al Similarity
296; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGAGATGGAACACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGC 1843
                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15.0%;
                                    15.0%;
98.3%;
                         Score 294.2; DB 1
Pred. No. 3.2e-71;
1; Mismatches 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 294.2; DB 10;
Pred. No. 3.2e-71;
1; Mismatches 4;
                                               DB 10;
                         4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 476;
                                              Length 476;
                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 237
                                S
                                                            밁
                                                                                    S
                                                                                                             밁
                                                                                                                              á
                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5
                                                                                                                                                                                                                      Query Match
Best Local
                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1964 G 1964
                                                                                                              419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         176 G 176
```

```
RESULT 14
US-09-925-065A-201701/c
US-09-925-065A-201701/c
; Sequence 201701, Application US/09925065A
; Publication No. US20040181048A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQ ID NOS: 957086
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 201701
LENGTH: 479
TYPE: DNA
CRGANISM: Homo sapiens
US-09-925-065A-201701
                                                                                                                                                                                                                                                                                                                                                                                                                                                         FILE REFERENCE: 108827.135
CURRENT APPLICATION NUMBER: US/09/925,065A
CURRENT FILING DATE: 2001-08-08
PRIOR APPLICATION NUMBER: US 60/243,096
PRIOR FILING DATE: 2000-10-24
PRIOR APPLICATION NUMBER: US 60/252,147
PRIOR FILING DATE: 2000-11-20
PRIOR FILING DATE: 2000-11-30
PRIOR FILING DATE: 2000-11-30
PRIOR FILING DATE: 2000-11-30
PRIOR APPLICATION NUMBER: US 60/261,766
PRIOR APPLICATION NUMBER: US 60/261,766
PRIOR APPLICATION NUMBER: US 60/269,846
PRIOR FILING DATE: 2001-01-16
PRIOR FILING DATE: 2001-05-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Wang, David G.
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nucleotide Polymorphisms in the Hum
                                                                                                                                                                                                                        h 15.0%;
Similarity 97.7%;
97; Conservative
                   ATTCAGAGATGGAACACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCC 1840
                                                                                                                                                        CAGAGATGGAACACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTCAGAGATGGAGCACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 294; DB 6;
Pred. No. 3.6e-71;
1; Mismatches 6
                                                                                                                                                                                                                                                                                                        DB 6; Length 479;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       in the Human Genome
                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                          1720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1843
                                                                   300
                                                                                                                                      360
                                                                                                                                                                        1780
                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     297
 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      417
                                                                                                                                                                                                                                                                          0
```

```
APPLICANT: Wang, David G.
TITLE OF INVENTION: Identification and Mapping of Single
TITLE OF INVENTION: Nuclectide Polymorphisms in the Human Genome
FILE REFERENCE: 10827.135
CURRENT APPLICATION NUMBER: US/09/925,065A
CURRENT FILING DATE: 2001-08-08
PRIOR APPLICATION NUMBER: US 60/243,096
PRIOR APPLICATION NUMBER: US 60/243,096
PRIOR APPLICATION NUMBER: US 60/252,147
PRIOR APPLICATION NUMBER: US 60/252,147
PRIOR APPLICATION NUMBER: US 60/252,092
PRIOR APPLICATION NUMBER: US 60/250,092
PRIOR APPLICATION NUMBER: US 60/250,092
PRIOR APPLICATION NUMBER: US 60/250,092
PRIOR APPLICATION NUMBER: US 60/261,766
                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                             Ś
Search completed: April 5, 2006, 14:42:32 Job time : 1321 secs
                                                                                                                            ð
                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-925-065A-198635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 15
US-09-925-065A-198635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 295; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 198635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 198635, Application US/09925065A Publication No. US20040181048A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 469
                                                                                                                                                                                                                       1846
                                                                                                                                                                                                                                                                                       1786 GAGATGGAACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCAC 1845
                                                                                                             1961 AATG 1964
                                                                                                                                                                              181
                                                                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    179 AATG 176
                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                               ب
                                                                                                                                                                                                   GAGATGGAACACACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCAC 180
                                                                                                                                                                                                                                                                                                                                                    15.0%; Score 293.8; DB 6; Length 469; ilarity 98.7%; Pred. No. 4.1e-71; Conservative 1; Mismatches 3; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         957086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                           60
```

TO REAL PROPERTY OF THE SAME O

This Page Blank (uspto)

Run

```
Regult
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9::
       10
11
12
12
13
14
16
16
16
17
                                                                                                                                                                                                                                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                  1944
1929.8
1929.8
1900.4
1900.4
1836.4
1836.4
1812.4
1812.4
1812.4
1807.4
                                                                                                                                                                                                                 1964
1962.4
1948
1944
                                                                                                                                                                                                                                                                                                              Score
                                                                                                                                                                                                                                                                                1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleic search, using sw
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N_Geneseq_21:*
1: geneseqn1980s:*
2: geneseqn1990s:*
3: geneseqn2001s:*
4: geneseqn2001bs:*
5: geneseqn2001bs:*
6: geneseqn2002bs:*
7: geneseqn2002bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length: 0 length: 2000000000
                                                                                                                                                                                                                                                                                                            Query
Match
    IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          April 5, 2006, 13:18:49; Search time 811 Seconds (without alignments)
16139.897 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4996997 segs, 3332346308 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-071-838-1
1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                     10:
12:
13:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               atggacgtggtagaggtcgc.....aaatgtttcctgttgaaatg 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              geneseqn2003as:*
geneseqn2003bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           geneseqn2002bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         geneseqn2001bs:*
geneseqn2002as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       geneseqn2000s:*
geneseqn2001as:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  geneseqn2004as:*
geneseqn2004bs:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                geneseqn2003cs: *
geneseqn2003ds: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                  geneseqn2005s:*
                                                                                                                                                                                                                                                                                                            Length DB
    1964
20072
20064
20064
11993
11993
11993
23004
23004
20084
20084
20084
20084
20084
20072
20072
20072
20072
20072
20072
20072
20072
20072
                                                                                                                                                                                                                                                              1964
1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd.
      6 6 1 10
                                                                                                                                                          10
                                                                 12
                                                                                                             12
                                                                                                                                        ABS54706
ADC37382
ADC37384
ADC37384
ABX71403
ADQ84596
ADQ86595
ADA15001
ADT88069
ADC37380
ADC3737378
                                                                                            ABZ11810
ADM44328
ABZ11809
ADM44327
ADC37388
ADC37386
ADC37386
ADM01991
ABS54707
ABS54708
                                                                                                                                                                                                                                                                                                              Ħ
                                                                                                                                                                                                                                                                                                                                                          SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mode1
                              Abs54706 cDNA enco
Adc37382 Nuclear f
Adc37384 Nuclear f
Adc37384 Nuclear f
Adc37384 Nuclear f
Abx71403 Human cel
Adq86595 Human tum
Adq86595 Human tum
Ada15001 cDNA enco
Adc88069 Human pro
Adc37380 Nuclear f
Adc37378 Nuclear f
Adc37378 Nuclear f
Adc37378 Nuclear f
Adc37386 Nuclear f
                                                                                                                                                                                                                                                                                                           Description
    cDNA enco
    RESULT 1
ABSS4706
ID ABSS4706
ID ABSS4706
ID CDN
XX ABSS
XX ABSS
XX ABSS
XX CDN
DT 28-N
XX CDN
XX Huma
XX Huma
XX Huma
XX Homc
XX WO20
PT CDS
FT CDS
XX WO20
XX O8-F
XX O8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to a new PRC17 polypeptide.
                                                            Novel isolated PRC17 polypeptide useful-diagnostically or prognostically to detect diseases or conditions associated with altered PRC17 activity or expression relative to normal, for example eanoer.
                                                                                                                          WPI; 2002-706902/76.
P-PSDB; ABG70736.
                                                                                                                                                                                                                         08-FEB-2001; 2001US-0267615P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human; PRC17; |
breast cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABS54706;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABS54706 standard; cDNA; 1964
                                 Claim 24; Page 62; 78pp; English.
                                                                                                                                                                     Li J,
                                                                                                                                                                                                                                                              08-FEB-2002; 2002WO-US003457
                                                                                                                                                                                                                                                                                              15-AUG-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cDNA encoding human PRC17 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-NOV-2002
                                                                                                                                                                                                   (TULA-) TULARIK INC.
                                                                                                                                                                                                                                                                                                                         WO200262958-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    882.8
882.8
882.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1638.8
1220
1220
1220
1220
1218.4
1128.4
1127.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             879
                                                                                                                                                                     Powers S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRC17; prostate cancer; ovarian cancer; lung cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   44.8
44.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44
44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                cytostatic; chromosome 17q11-12; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
1. .1650
/*tag= a
                                                                                                                                                                                                                                                                                                                                                       /product= "Human PRC17 protein"
                                                                                                                                                                       Xiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9804
9804
9804
9404
9404
9404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1752
7856
7856
7856
7878
2881
2881
3799
3799
3901
8201
8201
8201
8201
8201
8201
8201
8408
8408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entry)
                                                                                                                                                                       ָס'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10
13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        თთთთ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4 <sup>5</sup> 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADC31883
AAS36329
AAL05173
ABL98060
ADE47023
ADJ08441
AAS36326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACN42882
ACN42884
ACN42883
ANCN42883
ANCN4288212
AAT12110
AAT125053
AAE85535
AAI57848
AAI57847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABS78751
AAS85531
AAS88213
ABL64684
                                                                                                                                                                     Peng Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABL98058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAL05171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Abs78751 DNA encod
Aas85531 DNA encod
Aas88213 DNA encod
Abl64684 Stomach c
Acn42882 Human dia
Acn42883 Human dia
Acn42883 Human dia
Acn42883 Human dia
Acs88212 DNA encod
Aat12170 pJG4-5-CD
Adde85053 Farnesyl
Aa685535 DNA encod
Aai57849 Human pol
Aai57849 Human pol
Aai59633 Human pol
Aai59633 Human pol
Aai59633 Human car
Aal05173 Human car
Aal05173 Human car
Aal05171 Human car
Aai05171 Human car
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ade47020 Human car
Adj08438 Human car
      The invention
```

```
Ś
                                                밁
                                                                δ
                                                                                        밁
                                                                                                      8
                                                                                                                            8 8 8 8 8 8
                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                유
                                                                                                                                                                                                                                                                                                                                   뭐
                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                        र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Simi
Matches 1964;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 is useful for detecting cancer cells (such as prostate tissue, breast tissue, lung tissue, ovarian tissue) in a biological sample. The invention is further useful for monitoring the efficacy of a therapeutic treatment of a cancer (prostate cancer, ovarian cancer, lung cancer, breast cancer). The molecules of the invention are useful diagnostically or prognostically to detect diseases or conditions associated with altered PRC17 activity or expression relative to normal, for example cancer. The present nucleic acid sequence represents the human PRC17 gene located on chromosome 17q11-12. This sequence encodes the human PRC17 protein of the invention
                                                                                         661
                                                                                                                                                                         541
                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                         181
                             781
                                                721
                                                                   721
                                                                                                            661
                                                                                                                                 601
                                                                                                                                                     601
                                                                                                                                                                                                                  481
                                                                                                                                                                                                                                     481
                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                    361
                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1964 BP; 472 A; 553
                                                                                                                                                                                                                                                                                                                                        GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGACGAGAGGACATCATTATG
         CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                           CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                    AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                   GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                            GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                         CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                     CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                AAGTTGAAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                  ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                             ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                          CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                         AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 1964;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                561 G; 378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0 U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1964;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                      780
                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         120
           840
                              840
                                                                                          720
                                                                                                                                  660
                                                                                                                                                      660
                                                                                                                                                                          600
                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                  780
중 음 중
                                                      문
                                                                         8
                                                                                          밁
                                                                                                                  δ
                                                                                                                                      유
                                                                                                                                                                            닭
                                                                                                                                                                                                 8
                                                                                                                                                                                                                          유정
                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                   음 성
                                                                                                                                                                                                                                                                                                                                               음 성
                                                                                                                                                                                                                                                                                                                                                                                    음 성
                                                                                                                                                                                                                                                                                                                                                                                                                              음성 음성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                           1441
                                                                                                                                                                                                                                                                                       1501
                                                                                                                                                                                                                                                                                                                                1441
                                                                                                                                                                                                                                                                                                                                                     1381
                                                                                                                                                                                                                                                                                                                                                                        1381
                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                    GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                   CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                           CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                   GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                   GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTIGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCCTCTGCAAGGGGGACAGGCCAGGCCCACCAGGCCCGGTTCCCGGGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                     AGACCCCAGATCACAAAGCCCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCACGAC
                                                                                                     CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGTTCAGAGATGGAACACACC
                                                                                                                                                                                     GANAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA
 ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1020
                                                                                                                                                                                                         1680
                                                                                                                                                                                                                                                  1620
                                                                                                                                                                                                                                                                     1560
                                                                                                                                                                                                                                                                                         1560
                                                                                                                                                                                                                                                                                                                                                     1440
                                                                                                                                                                                                                                                                                                                                                                         1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1020
                                                                                  1860
                                                                                                                                                                                                                               1620
                                                                                                                                                                                                                                                                                                              1500
                                                                                                                                                                                                                                                                                                                                 1500
                                                                                                                                                                                                                                                                                                                                                                                              1380
                                                                                                                                                                                                                                                                                                                                                                                                                 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                     1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200
                                                                                                      1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
```

```
RESULT 2
ADC37382
ID ADC37382
XX ADC3
XX ADC3
XX ADC3
XX ADC3
XX Nucl
XX Nucl
XX Nucl
XX Nucl
XX Neus
XX Homc
XX Hom
XX H
      S
                                                                            ş
                                                                                                                         밁
                                                                                                                                                       ð
                                                                                                                                                                                                  皮
                                                                                                                                                                                                                                    Ś
                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 1964; Conserv
                                                                                                                                                                                                                                                                                                                                                                                          The present invention relates to novel proteins and their coding sequences (ADC37168-ADC37458), which activate nuclear factor kappa B (NF-kappaB). The proteins and their coding sequences are useful for treating a disease associated with NF-kappaB activation, such as inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases, or ischaemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New purified protein that activates nuclear factor kappa B (NF-kappaB), useful for treating inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases or ischemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Nuclear factor kappa B; NF-kappaB; inflammation; autoimmune disease; cancer; infectious disease; bone disease; ANID; neurodegenerative disease; ischaemic disorder; Antiinflammatory; Immunomodulator; Cytostatic; Antimicrobial; Osteopathic; Anti-HIV; Neuroprotective; Nootropic; Cardiant; Gene therapy; human; gene; ds.
                                                                                                                                                                                                                                                                                                                                                          Sequence 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 4; SEQ ID NO 215; 938pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-DEC-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matsuda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO2003048202-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADC37382;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADC37382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ASAH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2003-505282/47.
)B; ADC37383.
        181
                                            121
                                                                                 121
                                                                                                                                                            61
                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ASAHI KASEI KK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        factor
                                                                                                                                         AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                  ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                          ATGGACGTGGTAGAGGTCGCCGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                  AGCTACAACAACAACGTCGATCATTTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                       AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          standard;
                                                                                                                                                                                                                                                                           100.0%; : ilarity 100.0%; : Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Muramatsu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; 2001JP-00368692.
; 2001US-0335829P.
; 2002JP-00291302.
; 2002US-0415769P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2002WO-JP012644
                                                                                                                                                                                                                                                                                                                                                            BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first
                                                                                                                                                                                                                                                                                                                                                          472 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (NF-kappaB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1964
                                                                                                                                                                                                                                                                                                                                                          553 C; 561 G; 378 T; 0 U;
                                                                                                                                                                                                                                                                           Score 1964;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    activating
                                                                                                                                                                                                                                                                                                                     DB
                                                                                                                                                                                                                                                                                                                   10;
                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene,
                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    215
                                                                                                                                                                                                                                                                               <u>,,</u>
                                                                                                                                                                                                                                                                               Gaps
                                                                                 180
                                                                                                                         120
                                                                                                                                                              120
                                                                                                                                                                                                  60
                                          180
                                                                                                                                                                                                                                                                               0
                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                              S
                      δ
                                                            밁
                                                                                           δ
                                                                                                                                       밁
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                        1261
                                                                                                                                       1141
                                                                                                                                                                            1141
                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                               1021
                                                                                                                                                                                                                                                                                                                                    1021
                                                                                                                                                                                                                                                                                                                                                                          961
                                                                                                                                                                                                                                                                                                                                                                                                               961
                                                                                                                                                                                                                                                                                                                                                                                                                                                     901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ,52,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                        GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGAAG
                                                                                                                                                                                ACCCTCTGCAAGGGGGACAGGCAGGCCCTCCAGGCCCAGCCCGGTTCCCGCGGCCC
                                                                                                                                                                                                                  GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                     AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAAGGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                               AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                            TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAATGCCCATGAACATCCGGGGCCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAATGCCCATGAACATCCGGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                   1260
                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                            1200
                                                                                                                                                                                                                  1140
                                                                                                                                                                                                                                                         1140
                                                                                                                                                                                                                                                                                               1080
                                                                                                                                                                                                                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                                                                                                                                 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                     960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
```

```
RESULT 3
ADC37384
ID ADC37384
AC ADC3
XX ADC3
XX Nucl
DE Nucl
XX Nucl
EX Nucl

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                    Nuclear factor kappa B; NF-kappaB; inflammation; autoimmune diseas cancer; infectious disease; bone disease; AlIDS; neurodegenerative disease; ischaemic disorder; Antiinflammatory; Immunomodulator; Cytostatic; Antimicrobial; Osteopathic; Anti-HIV; Neuroprotective; Nootropic; Cardiant; Gene therapy; human; gene; d
    03-DEC-2001;
05-DEC-2001;
                                                            03-DEC-2002; 2002WO-JP012644.
                                                                                                                                                                                                                                                                                                                                                 Nuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADC37384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1501
                                                                                                                                                                                   sapiens
                                                                                                                                                                                                                                                                                                                                             factor kappa B (NF-kappaB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCCAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA
    2001JP-00368692
2001US-0335829P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA;
                                                                                                                                                                                                                                                                                                                                                                                       entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ΒP
                                                                                                                                                                                                                                                                                                                                               activating gene,
                                                                                                                                                                                                                                                                                                                                                 SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1964
                                                                                                                                                                                                                                                                                                                                                 H
                                                                                                                                                                                                                                                                                                          disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                    문
                                                                                                              Ś
                                                                                                                                                                밁
                                                                                                                                                                                           S
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 1963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to novel proteins and their coding sequences (ADC37168-ADC37455), which activate nuclear factor kappa B (NF-kappaB). The proteins and their coding sequences are useful for treating a disease associated with NF-kappaB activation, such as inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases, or ischaemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New purified protein that activates nuclear factor kappa B (NF-kappaB), useful for treating inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases or ischemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          03-OCT-2002; 2002JP-00291302.
04-OCT-2002; 2002US-0415769P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 4; SEQ ID NO 217; 938pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1963;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2003-505282/47.
DB; ADC37385.
      601
                                       601
                                                                                                                                                                  481
                                                                                                                                                                                                        481
                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                       421
                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               سر
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ņ
                           CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                         GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                            CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                              AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCTACAACAACGACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAATACGAAAAGGGACACCGAGCTGGGGTTGCCAGAGGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1964 BP;
      CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                        AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                            GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGGACGTGGTAGAGGTCGCGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                     AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                    GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                              AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Muramatsu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KASEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      즛
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              552 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1962.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              561 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ۲.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Other;
```

Gaps

0

180 120 120 60

240

360 360 300 300

480 480 420 420

540

660 600 600 540

밁 ð

ક 밁 S 밁 ş

```
1681
                                 1621
                                                                                          1561
                                                                                                                      1561
                                                                                                                                                                                  1501
                                                                                                                                                                                                                1441
                                                                                                                                                                                                                                            1441
                                                                                                                                                                                                                                                                          1381
                                                                                                                                                                                                                                                                                                        1381
                                                                                                                                                                                                                                                                                                                                      1321
                                                                                                                                                                                                                                                                                                                                                                    1321
                                                                                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                                               1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                      1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                           GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCCTCTGCGGCCTCCACTTG
                                             GAAAGTTCTCAGTTCCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                     CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                              CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                 CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                         GAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                               GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                    GTCCGGGAAGACACCTACCCTGTGGGCALTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCGGGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTgACGTGGCGGAAG
AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA 1740
                                                                                          GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                    CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                      GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCCCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGGCACGTTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCA 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DECAACCCCCA
                                                                                                                                                    1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1080
                               1680
                                                            1680
                                                                                          1620
                                                                                                                    1620
                                                                                                                                                                                1560
                                                                                                                                                                                                              1500
                                                                                                                                                                                                                                            1500
                                                                                                                                                                                                                                                                          1440
                                                                                                                                                                                                                                                                                                     1440
                                                                                                                                                                                                                                                                                                                                     1380
                                                                                                                                                                                                                                                                                                                                                                   1380
                                                                                                                                                                                                                                                                                                                                                                                                                             1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                             1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
```

ક

밁 र् 밁 5 밁 S 밁 5 밁

밁 S 밁 S 밁

ઇ

밁 ঠ 밁

1681

밁 S

99

ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG

Query Match Best Local Similarity Matches 1954; Conserv

99.2%;

Score 1948; Pred. No. 0; Mismatches

멂

5 10;

Length Indels

°.

Gaps

0

158 60 0 Other;

0

Sequence 2072 BP; 510 A; 579 C; 586 G; 397 T; 0 U;

S В ঠ 밁 र् 밁 ð 밁 र्

밁

```
RESULT 4
ARXIVATA
ARX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                               This invention describes novel polynucleotides and polypeptides isolated from human cDNA libraries which can be used for gene therapy or in vaccines. The polynucleotides of the invention and antibodies encoded by them may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate polypeptide expression. The products of the invention may also be used to identify modulators of expression and activity and to down regulate expression and activity. The antibodies of the invention may also be used as diagnostic agents for detecting the presence of polypeptides in samples. This sequence encodes a polypeptide described in the disclosure of the invention
                                                                                                                                                                                                                                                                                                                                                                          Claim 1; Page 867; 1095pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                Nucleic acids having the different human tissues,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-327840/
P-PSDB; ABU53234.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wiemann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-AUG-1999;
28-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200112659-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   14-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABX71403;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABX71403 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-AUG-2000; 2000WO-IB001496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (GEHU-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2001-327840/34.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cell cycle-associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GERMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCCAGCCCACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGTCAGAGATGGAACACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTATGAAAATGTATTAAGAAAGAGTGCAGĆTCGAGAGAGATTCAGAGATGGAACACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HUMAN GENOME PROJECT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0149499P
99US-0156503P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2072
                                                                                                                                                                                                                                                                                                                                                                                                                                   sequences of clones isolated from libraries useful in recombinant DNA methodologies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cDNA from clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    treatment; detection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DKFZphtes3_35p22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 œ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1920
```

```
1119
                                                                                                             1021
                                                                                                                                         1059
                                                                                                                                                                     961
                                                                                                                                                                                                 999
                                                                                                                                                                                                                                                                                                                                                                                                                                                     661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               339
                                                                                                                                                                                                                            901
                                                                                                                                                                                                                                                      939
                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                              879
                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                     819
                                                                                                                                                                                                                                                                                                                                                                                                 721
                                                                                                                                                                                                                                                                                                                                                                                                                             759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                    AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG 180
GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTCCCGGCTTCACGTGGCGGAAG
                                                                                                  AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA 1080
                                                                                                                                                                                                              ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG 300
                                                                                                                                                      TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                        CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                CTGCAGGGGATTTCACAGGCCCAAATGGCGGGACCGTCCCAGGGGGCTCCCAAGACCCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGCAGGGATTTCACAGCCCAAATGGCGGGGGCCGTCCAGGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                         CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGCTGATGCCGATA
                                                                                                                                                                                                                                                                                                                CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAAGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
1200
                                                                                                                                                                     1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       338
                                                                                    1178
                                                                                                                                                                                                 1058
                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  120
                            1238
                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                         998
                                                                                                                                                                                                                                                                                                              938
                                                                                                                                                                                                                                                                                                                                                                       878
                                                                                                                                                                                                                                                                                                                                                                                                                             818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 518
```

유 & 밁 ક 밁 Ş 8 S 8 5 밁 र् 밁 δ 밁 δ

```
Ś
                       음 성
                                                       g
                                                                        S
                                                                                                               S
                                                                                                                                     음 성 음
                                                                                                                                                                                        S
                                                                                                                                                                                                         밁
                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                               당
                                                                                                                                                                                                                                                                 ક
                                                                                                                                                                                                                                                                                  음 성
                                                                                                                                                                                                                                                                                                                       Б
                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                      멼
                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                 1839
                         1959
                                                                                                                                       1779
                                                                                                                                                         1681
                                                                                                                                                                            1719
                                                                                                                                                                                              1621
                                                                                                                                                                                                                                                     1599
                                                                                                                                                                                                                                                                       1501
                                                                                                                                                                                                                                                                                                                                                                    1419
                                                                                                                                                                                                                                  1561
                                                                                                                                                                                                                                                                                          1539
                                                                                                                                                                                                                                                                                                            1441
                                                                                                                                                                                                                                                                                                                                                1381
                                                                                                                                                                                                                                                                                                                                                                                     1321
                                                                                                                                                                                                                                                                                                                                                                                                        1359
                                                                                                                                                                                                                                                                                                                                                                                                                          1261
                                                                                                                                                                                                                                                                                                                                                                                                                                             1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1239
ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG 1964
                                    CATCGTTCTGAATTCTGACGACACCGTGAGGCCTGCCTTTGTACTTTTAAACTCATGGAAGG
                                                                           AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCACGAC
                                                                                                 AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTTGGTTAAA 1740
                                                                                                                                                                            GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                      GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                           GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                               CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                         CGTGCCATATCCCAGGAGGACCAGCTGGCCCCTGCTGGCAGGCTGAACACCCTGCGAG
                                                                                                                                                                                                                                                                                                      CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                              GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                       GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTCAAACTCATGGAAGG
                                                                                                                                                                                                                 GCTAGGGACGAACAGCAGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                      CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                             1920
                                                              1958
                                                                                1860
                                                                                                   1898
                                                                                                                      1800
                                                                                                                                        1838
                                                                                                                                                                             1778
                                                                                                                                                                                              1680
                                                                                                                                                                                                                 1718
                                                                                                                                                                                                                                    1620
                                                                                                                                                                                                                                                     1658
                                                                                                                                                                                                                                                                       1560
                                                                                                                                                                                                                                                                                           1598
                                                                                                                                                                                                                                                                                                            1500
                                                                                                                                                                                                                                                                                                                              1538
                                                                                                                                                                                                                                                                                                                                                 1440
                                                                                                                                                                                                                                                                                                                                                                     1478
                                                                                                                                                                                                                                                                                                                                                                                     1380
                                                                                                                                                                                                                                                                                                                                                                                                         1418
                                                                                                                                                                                                                                                                                                                                                                                                                           1320
                                                                                                                                                                                                                                                                                                                                                                                                                                              1358
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1298
                         2018
```

ADQ84596 standard; CDNA; 2064 ВÞ

07-OCT-2004 (first entry)

Human tumour-associated antigenic target (TAT) cDNA sequence #1410

RRESULT 5
ADQ84596
IID ADQ8
XX
AC ADQ8
XX
PI 07-C
PI 07-C
PI 07-C
XX
DE Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma
XX
Huma human; tumour-associated antigenic target; TAT; cancer; cell proliferative disorder; gene; ss. cytostatic; gene therapy;

Homo sapiens

5

밁 S 밁

S 밁 ঠ

유 밁

중 유

S

음 성

밁 ર્ક 밁 S 밁 ş

WO2004060270-A2

```
ð
                                                                                                                                                                                                                                S
                                   밁
                                                                                                    밁
                                                                                                                                 Ś
                                                                                                                                                                                                                                                                    CC target (TANT) nucleic acid comprising: (a) any of 4622 nucleotide
CC sequences (see SEQ ID NO:1 to 4622); (b) the full-length coding region of
CC (a); (c) the complement of (a) or (b); (d) a sequence that has 80%
CC (c). Also described: (1) an expression vector comprising the above
CC nucleic acid; (2) a host call comprising the above expression vector; (3)
CC comprising: (a) an amino acid sequence encoded by any of the above
CC length coding region of the above nucleotide sequences; (b) an amino acid sequence encoded by the full-
CC length coding region of the above nucleotide sequence; (c) a sequence
CC comprising the above polypeptide (l) an isolated polypeptide; (6)
CC an isolated antibody that binds to the above polypeptide; (10) a
CC composition of matter comprising the above polypeptide; (10) a
CC composition of matter comprising the above polypeptide; (10) a
CC composition of matter comprising the above (chimeric) polypeptide;
CC the above polypeptide or TAT binding organic molecule, in combination
CC with a carrier; (11) an article of manufacture comprising container and
CC composition of matter comprising organic molecule, in combination
CC with a carrier; (11) an article of manufacture comprising container and
CC composition of matter contained within the container; (12) methods of
CC the growth of the cell is at least in part dependent upon a growth
CC potentiating effect of the above protein; (13) a method of
CC presence of a protein in a sample suspected of containing the protein
CC described above; (15) methods of diagnosing the presence of a tumour in a
CC described above; (15) methods of binding an antibody, oligopeptide or
CC presence of a protein of a cell that expresses the protein described above
CC described above; (15) methods of binding an antibody, oligopeptide or
CC described above; (15) methods of diagnosing the presence of a tumour in a
CC described above; (15) methods of diagnosing the present seed in gene
CC described above conserved the protein of a method of preparing
CC descr
                                                                                                                                                                 Query Match
Best Local S
Matches 1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (GETH )
(WUTD/)
(ZHOU/)
                                                                                                                                                                                                                                Sequence 2064 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention describes an isolated tumour-associated antigenitarget (TAT) nucleic acid comprising: (a) any of 4622 nucleotide sequences (see SEQ ID NO:1 to 4622); (b) the full-length coding region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New nucleic acid molecule and encoded polypeptide, f preventing or treating cell proliferative disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ξ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-OCT-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-OCT-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-JUL-2004
      121
                                                                   61
                                                                                                    99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1; SEQ ID NO 1410; 5504pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENENTECH
WU T D.
ZHOU Y.
                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Zhou
     AGCTACAACAACGTCGATCATTTGGGGATTGTACA--TGAGACGGAGCTGCCTCCTC
                                                     AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                   ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGGACATCATTATG
                                   AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                    ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                             cDNA sequence from the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2002US-0418988P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2003WO-US029126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INC.
                                                                                                                                                                                                                             498 A;
                                                                                                                                                                                99.0%;
                                                                                                                                                                                                                                579
                                                                                                                                                               Score 1944; D
Pred. No. 0;
0; Mismatches
                                                                                                                                                                 0
                                                                                                                                                                                                                               C; 588 G; 399
                                                                                                                                                                                                 멂
                                                                                                                                                                                                                               T; 0 U; 0
                                                                                                                                                                                               13;
                                                                                                                                                                 5
                                                                                                                                                                 Indels
                                                                                                                                                                                             Length 2064;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for diagnosing,
                                                                                                                                                                                                                                Other;
                                                                                                                                                                 2
                                                                   120
                                                                                                   158
                                   218
                                                  문
                                                                             Ş
                                                                                                                밁
                                                                                                                                       S
                                                                                                                                                                              片
                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                    1199
                                                                                                                1179
                                                                                                                                                                                1119
                                                                                                                                                                                                                                              1059
                                                                                                                                                                                                                                                                            959
                                                                                                                                                                                                                                                                                                            999
                                                                                                                                                                                                                                                                                                                                            899
                                                                                                                                                                                                                                                                                                                                                                        939
                                                                                                                                                                                                                                                                                                                                                                                                        839
                                                                                                                                                                                                                                                                                                                                                                                                                                          879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              239
CCATTTGGTCAGCTTCCCCGGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCT
                                                                         AGACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCGCGGC 1198
                                                                                                                                  CAGCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGA 1138
                                                                                                                                                                                                 TCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCC
                                                                                                                                                                                                                                                                CGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGC
                                                                                                                                                                                                                                                                                                                               TAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCC
                                                                                                                                                                                                                                                                                                                                                                          GGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGA
                                                                                                                                                                                                                                                                                                                                                                                             GGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGGAATGCCCATGAACATCCGGGGCCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAA 358
                                                                                                                CAGCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGA
                                                                                                                                                                                                                                              CGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGCACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGAAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGAAGTTGAAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAAGAGGTCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACA
                                                                                                                1238
                                                                                                                                                                                                                                                                                                            1058
                                                                                                                                                                                                              1078
                                                                                                                                                                                                                                              1118
                                                                                                                                                                                                                                                                          1018
                                                                                                                                                                                                                                                                                                                                                                        998
                                                                                                                                                                                                                                                                                                                                                                                                        898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              298
                                                                                                                                                                                                                                                                                                                                          958
                                                                                                                                                                                                                                                                                                                                                                                                                                        938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    698
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    758
```

```
RESULT 6
ADQ86595
ID ADQ8
XX ADQ8
XX ADQ8
XX Huma
XX Huma
XX Huma
XX Huma
XX Homc
XX H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
   18-OCT-2002; 2002US-0418988P
                                                          15-OCT-2003; 2003WO-US029126
                                                                                                                                                                            WO2004060270-A2
                                                                                                                                                                                                                                                                                                cancer; cell
                                                                                                                                                                                                                                                                                                                                                                                   Human tumour-associated antigenic target (TAT) cDNA sequence #3468
                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADQ86595 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1739
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1559
                                                                                                                                                                                                                                                                                             tumour-associated antigenic target; TAT; cytostatic; cell proliferative disorder; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATAATTTCCCTAGGCTTAACCAACCCAAGCAGCTTCGCGTCCTCGTTTTATTTTTGGTTA 1738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGGCCTCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCA 1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTC 1418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGATAACCACCTTCATGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTCAAACTCATGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATAATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCATCCTCGTTTTATTTTTGGTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGG 1678
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGCTAGGGAACAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGG 1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAA 1478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAA 1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTC 1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGG 1358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGGAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDNA; 2064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2064
                                                                                                                                                                                                                                                                                                                            gene therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1778
```

S 밁 δ 문 S

159 61 99 Best Local Si Matches 1959; Query Match Best Local Similarity

Conservative

0

5

Indels Length 2064;

2

Gaps

99.0%;

Score 1944; Di Pred. No. 0; 0; Mismatches

8

Sequence 2064 BP;

498 A; 579 C; 588 G; 399 T; 0 U; 0 Other;

밁

179 219

AGCTACAACAACAACGTCGATCATTTGGGGATTGTACA--TGAGACGGAGCTGCCTCCTC

178

278

218 120 158 60

238

AGCTACAACAACGTCGATCATTTGGGGATTGTACAAGTGAGACGGAGCTGCCTCCTC

AAATACGAAAAGGGACACCGAGCTGGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTTCGA ATGGACGTGGTAGAGGTCGCGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGAGGACATCATTATG

AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA

```
CC target (TAT) muleic acid comprising: (a) any of 462 nucleotide
CC sequences (see SEQ ID NO:1 to 4622); (b) the full-length coding region of
CC (a); (c) the complement of (a) or (b); (d) a sequence that has 80%
CC sequence identity to (a)-(c); or (e) a sequence that hybridises to (a)-
CC (c). Also described: (1) an expression vector comprising the above
nucleat acid; (2) a host cell comprising the above expression vector; (3)
CC a process for producing a polypeptide; (4) an isolated polypeptide
CC comprising: (a) an amino acid sequence encoded by any of the above
nucleotide sequences; (b) an amino acid sequence encoded by the full-
CC length coding region of the above encleotide sequences; or (c) a sequence
CC comprising the above polypeptide fused to a heterologous polypeptide; (6)
CC an isolated antibody that binds to the above polypeptide; (7) a process
CC for producing the antibody; (8) an isolated anti-genit ctarget (7AT)
CC binding organic molecule that binds to the above polypeptide; (10) a
CC composition of matter comprising the above polypeptide; (17) a process
CC composition of matter comprising the above polypeptide; (10) a
CC composition of matter contained within the container; (12) methods of
CC the above polypeptide or TAT binding organic molecule, in combination
CC the growth of the cell is at least in part dependent upon a growth
CC therapeutically treating a mammal having a cancerous tendod of
CC therapeutically treating a mammal having a cancerous tumour comprising
CC colls that express the above protein; (13) a method of containing the protein in a sample suspected of containing the protein
CC described above; (15) methods of diagnosing the protein described above.
CC protein; and (17) a method of binding an antibody, olipopptide or
CC protein; and (17) a method of binding an antibody, olipopptide or
CC protein; and collected with increased expression or activity of the above
CC protein; and collected the composition is also used in gene
CC protein; and collected the composition is also us
New nucleic acid molecule and encoded polypeptide, for diagnosing, preventing or treating cell proliferative disorders such as cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GETH )
(WUTD/)
(ZHOU/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1; SEQ ID NO 3468; 5504pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2004-534300/51.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               present invention describes an isolated tumour-associated antigenic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENENTECH
WU T D.
ZHOU Y.
```

```
1359
                                             1259
                                                                                        1299
                                                                                                                                1199
                                                                                                                                                                         1239
                                                                                                                                                                                                                    1139
                                                                                                                                                                                                                                                               1179
                                                                                                                                                                                                                                                                                                          1079
                                                                                                                                                                                                                                                                                                                                                     1119
                                                                                                                                                                                                                                                                                                                                                                                             1019
                                                                                                                                                                                                                                                                                                                                                                                                                                        1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        639
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            579
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       279
                                                                                                                                                                                                                                                                                   CAGCCAAACCCGAGCAAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTC
                        CTGTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGGCCCTGGCTC
                                                                                                       CCATTTGGTCAGCTTCCCCGGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGG
                                                                                                                                                                                                AGACCCTCTGCAAGGGGGACAGGCAGGCCCTCCAGGCCCACCAGCCCGGTTCCCCGCGGC
                                                                                                                                                                                                                                                                                                                                                                           TCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTAT
                                                                                                                                                                         CAGCCAAACCCG
                                                                                                                                                                                                                                                                                                                                                TCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCTCACCCTGCGCCTGTGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCTGCAGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGAGCCAACAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCGCCATATGAGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGAAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGAGGCCAAGAGGTCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGGAATGCCCATGAACATCCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATATGCTGGGAGACTGGGAGAAAATACAAAAGCAGCAGAAAAGCTCATAGATCGAGCGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGG
                                                                                                                                                                                                                  1198
  1418
                                          1318
                                                                                                                                                                                                                                                             1238
                                                                                                                                                                                                                                                                                                                                                                                         1078
                                                                                     1358
                                                                                                                                                                                                                                                                                                                                                1178
                                                                                                                                                                                                                                                                                                                                                                                                                                    1118
                                                                                                                                                                         1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                338
RESULT 7
AAA15001
ID AAA1
XX AAA1
AC AAA1
XX AAA1
XX CONA
XX C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
```

음 성

S 밁 S 밁 ち 유 S 밁 á 밁 S B ঠ 밁 S 밁

밁

```
1899
                                                                                                                                                    1799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1479
 2019
                                                                                                                                                                                      1839
                                                                                                                                                                                                                   1739
                                                                                                                                                                                                                                                 1779
                                                                                                                                                                                                                                                                              1679
                                                                                                                                                                                                                                                                                                             1719
                                                                                                                                                                                                                                                                                                                                        1619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1319
                              1919
                                                             1959
                                                                                                                                                                                                                                                                                                                                                                          1659
                                                                                                                                                                                                                                                                                                                                                                                                                                       1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1499
                 GGATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG
GGATAACCACCTTCATGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                             ACCATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAA
                                                                                                                                          AGCGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCCGTGCCATATCCCAGGAGGACCAGCTGGCCCCTGCTGGCAGGCTGAACACCCTGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGGGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAA
                                                             ACCATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTCAAACTCATGGAA
                                                                                                                        CCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCAGCCCCACG
                                                                                                                                                                                                      AACTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGTTCAGAGATTGGAACACA
                                                                                                                                                                                                                                                                         ATAATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTA
                                                                                                                                                                                                                                                                                                                              TGGAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGG
                                                                                                                                                                                                                                                                                                                                                                        GAGCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACT
                                                                                                                                                                                                                                                                                                                                                                                          GAGCTAGGGACGAACAGCCGTGTGCCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGGGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCCGCCTCCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rctcagttccctccaggcttctagaagcatctgggccagggctatggctgg
2064
                              1964
                                                                                        1918
                                                                                                                                                                                    1898
                                                                                                                                                                                                                                                                             1738
                                                             2018
                                                                                                                       1958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1478
                                                                                                                                                     1858
                                                                                                                                                                                                                 1798
                                                                                                                                                                                                                                                1838
                                                                                                                                                                                                                                                                                                             1778
                                                                                                                                                                                                                                                                                                                                        1678
                                                                                                                                                                                                                                                                                                                                                                       1718
                                                                                                                                                                                                                                                                                                                                                                                                     1618
                                                                                                                                                                                                                                                                                                                                                                                                                                    1658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1538
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1378
```

AAA15001

AAA15001

CDNA;

1993

ВP

21-AUG-2000 (first entry)

encoding a human proliferation and apoptosis related protein.

Human; proliferation and apoptosis related protein; PROAP; psoriasis; cell proliferative disorder; immunological disorder; hepatitis; reproductive disorder; arteriosclerosis; cirrhosi; melanoma; lymphoma; cancer; acquired immune deficiency syndrome; AIDS; allergy; anaemia; asthma; diabetes mellitus; osteoarthritis; endometriosis; uterine fibroid; menstrual cycle; ss.

Homo sapiens

Location/Qualifiers 42. .1691 /*tag= a /rcag= a /product=

"proliferation and apoptosis related protein"

27-APR-2000

유

밁 Ś 밁 8 문 S 밁 Ş 뭥 5 밁 ð 멍 ર્ક 밁 S

```
Ś
                                   밁
                                                         S
                                                                                   밁
                                                                                                      S
                                                                                                                              밁
                                                                                                                                                                                    밁
                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                        ş
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 1945; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-OCT-1998;
04-FEB-1999;
11-FEB-1999;
22-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence encodes a human proliferation and apoptosis related protein (PROAP). The polypeptides and polypuclectides can be used for the diagnosis, treatment and prevention of cell proliferative, immunological and reproductive disorders. Disorders associated with decreased expression or activity of include arteriosclerosis, cirrhosis, hepatitis, psoriasis, melanoma, lymphoma and cancers of the breast, brain and prostate, acquired immune deficiency syndrome (AIDS), allergies, anaemia, asthma, diabetes mellitus, osteoarthritis, endometriosis, uterine fibroids and disruptions of the menstrual cycle. Antibodies against PROAP can be use in diagnosis of disorders characterized by PROAP e.g. in ELISA (enzyme linked immunosorbent assays) and the polymucleotides may be used to detect and quantify gene expression in biopsied tissues. These techniques can also be used to monitor regulation of PROAP levels during therapolitic intervention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New human proliferation and apoptosis related protein polypeptides for diagnosis, treatment and prevention of cell proliferative, immunological and reproductive disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000-339688/29.
DB; AAY84901.
                                                                                   342
             421
                                    402
                                                            361
                                                                                                           301
                                                                                                                                    282
                                                                                                                                                            241
                                                                                                                                                                                     222
                                                                                                                                                                                                           181
                                                                                                                                                                                                                                    162
                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                   102
                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9; Page 117-118; 128pp; English
                                                                                                                                                                                                                                                                                                                                 42
                                                                                                                                                                                                                                                                                                                                                         ب
                                                                                                                                                                                                                                                                                                                                             ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Yue H, n
CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                    AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGGCAAGAGGTCATCTGAG
                                                                                                   GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                    ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                    AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                 AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                  1993
                                      AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAAGGGCAAGAGGTCATCTGAG
                                                                                      GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                      ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                     ANATACGANAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                   ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                 BP; 478 A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0172216P.
99US-0118559P.
99US-0172229P.
99US-0154336P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99WO-US024511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hillman JL,
n MR, Yang J,
                                                                                                                                                                                                                                                                                                                                                                                           98.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                  564
                                                                                                                                                                                                                                                                                                                                                                                 .
                                                                                                                                                                                                                                                                                                                                                                                            Score 1929.8;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                 ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Guegler KJ,
, Shih LL;
                                                                                                                                                                                                                                                                                                                                                                                                                                  570
                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                  G; 381
                                                                                                                                                                                                                                                                                                                                                                                                                             .
T
                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Corley
                                                                                                                                                                                                                                                                                                                                                                                                                                  0 U;
                                                                                                                                                                                                                                                                                                                                                                                  7;
                                                                                                                                                                                                                                                                                                                                                                                                         ω
•
                                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ň,
                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                  0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Lal
                                                                                                                                                                                                                                                                                                                                                                                  7:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .
קי
                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           used
                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                   101
               480
                                       461
                                                              420
                                                                                      401
                                                                                                              360
                                                                                                                                     341
                                                                                                                                                              300
                                                                                                                                                                                                                                     221
                                                                                                                                                                                                                                                                                    161
                                                                                                                                                                                                                                                                                                                                                          60
                                                                                                                                                                     Ś
                                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                र्
                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                 र्ठ
                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
   밁
                 δ
                                         문
                                                                        S
                                                                                                 밁
                                                                                                                   δ
                                                                                                                                                 밁
                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                1182
                                                                                                                                                                                                                                                                                                                                                                                               1062
                                                                                                                                                                                                                                                                                                                                                                                                                       1021
   1542
                          1501
                                                                                                                                                                                                                         1261
                                                                                                                                                                                                                                                  1242
                                                                                                                                                                                                                                                                        1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                               GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
  CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                               CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                               GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                  GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                  GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                 ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                ATTIGGTCAGCITCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGGGGGCT
                                                                                                                                                                                                                                                                                              AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                              AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                    CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                    GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                    1421
                                                                                                                                                                                                    1361
                                                                                                                                                                                                                                                  1301
                                                                                                                                                                                                                                                                                                  1241
                                                                                                                                                                                                                                                                                                                         1200
                                                                                                                                                                                                                                                                                                                                                                         1140
                                                                                                                                                                                                                                                                                                                                                                                                                        1080
       1601
                             1560
                                                     1541
                                                                            1500
                                                                                                     1481
                                                                                                                            1440
                                                                                                                                                                            1380
                                                                                                                                                                                                                                                                           1260
                                                                                                                                                                                                                                                                                                                                                  1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            581
```

```
RESULT 8
ADT88069
ID 8069
ID 8079
AC ADT8
AC A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                      19-JAN-1999;
04-FEB-1999;
11-FEB-1999;
22-APR-1999;
19-OCT-1999;
11-APR-2001;
                          Tang YT, !
Azimzai Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROAP; proliferation and apoptosis related protein; cell proliferative disorder; cancer; atherosclerosis; immunological disorder; AIDS; acquired immunodeficiency syndrome allergy; reproductive disorder; infertility; gene therapy; cytos antiarteriosclerotic; immunosuppressive; anti-HIV; antiallergic; antiinfertility; gynaecological; human; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                        05-MAY-2004;
                                                                                                                                                                                                                                                                                                                                                                                                   US2004203106-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              30-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADT88069;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADT88069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                proliferation
                                                                                             INCYTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AATTTCCCTAGGCTTAACAACCCAAGCAAG-TTCGCATCCTCGTTTTATTTTTGGTTAAA
                     Yue H, H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATAACCACCTTCATGTTTTGAAATAAATGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATAACTACCTTCACGTTTTGAAATAAATGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCAGCCCCACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCCAGCCACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTAGGGACGAACAGCCGTGTGCCTCCCACCTCAGGGCCTTGCCCTCTGCGGCCTCCACTTG
                                                                                                                                    99US-0172216P.
99US-0118559P.
99US-0172229P.
99US-0154336P.
99WO-US024511.
2001US-00807452.
                                                                                                                                                                                                                                                                                                        2004US-00839882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first
                                                                                             CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
42. .1691
/*tag= a
/product= "Proliferat
(PROAP)-12"
                     Hillman JL,
ın MR, Yang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                and apoptosis related protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Proliferation
                          Ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₽₽
                     Guegler KJ,
Shih LL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1953
                                             Corley
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  apoptosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (PROAP) -12
                                             NC,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    related
                                             Lal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    syndrome;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cytostatic;
                                             ָיי
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1661
```

```
WPI; 200
P-PSDB;
                                                                                                     Claim
                                                                                                                   New human proliferation and apoptosis related proteins and polynucleotides for diagnosing, preventing or treating disorders associated with aberrant protein expression, e.g. cancer, AIDS, atherosclerosis or infertility.
                                                                                                                                                                      2004-728011/71.
                                                                                                      5
                                                                                                                                                             ADT88050.
                                                                                                      SEQ ID
                                                                                                      NO 31;
                                                                                                   85pp;
                                                                                                    English
```

related protein (PROAR) and its encoding nucleic acid. The invention is useful for diagnosing, preventing or treating disorders associated with altered expression or activity of human PROAP, such as cell proliferative (e.g. cancer or atheroscierosis), immunological (e.g. acquired immunodeficiency syndrome (AIDS) or allergies) or reproductive (e.g. infertility) disorders. The invention is also be used in screening for drugs that may be used for treating or preventing the disorders mentioned above and in gene therapy. The present sequence is the human PROAP-12 protein encoding cDNA.

Sequence 1993 BP; 478 A; 564 Ç 570 ç, 381 T; 0 ä 0 Other

Query Match Best Local Sim Matches 1945;

Similarity

98.3%;

Conservative

0

Score 1929.8; Pred. No. 0; 0; Mismatches

BB 7, 13;

Length

Gaps

```
S
                                    밁
                                                    ક
                                                                                                  S
                                                                                                                                 밁
                                                                                                                                                   S
                                                                                                                                                                                                  8
                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                  δ
                                                                                 문
                                                                                                                                                                          밁
                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
             661
                                    642
                                                          601
                                                                                  582
                                                                                                          541
                                                                                                                                  522
                                                                                                                                                        481
                                                                                                                                                                                462
                                                                                                                                                                                                       421
                                                                                                                                                                                                                                402
                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                              342
                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                              282
                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                            222
                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                            162
                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          42
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                μ
CTGCAGGGATTTCACAGCCCAAATGGCGGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAG
                                                                                                                                              GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                              CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                            GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                            CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                  AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTAT
                                                                                                                                  GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                            AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                            ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                             ATGCTGGGAGACTGGGAGAAATACAAAAGCCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                            AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCTACAACAACGACGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ANATACGAANAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAATACGAAAAGGGACACCGAGCTGGGGCTGCCAGAGGACAAGGGGGCCTAAGCCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                            660
                                     701
                                                                                  641
                                                                                                         600
                                                                                                                                  581
                                                                                                                                                       540
                                                                                                                                                                               521
                                                                                                                                                                                                                                461
                                                                                                                                                                                                                                                                             403
             720
                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                     360
                                                                                                                                                                                                                                                                                                                            341
                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                            281
                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                            221
                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60
```

```
1781
                         1741
                                                                                                                                                                                                                                                                                                                                                                                                                1321
                                                                                                                                                                                                                                                                                                                                                                                                                                           1302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1122
                                                                                                           1662
                                                                                                                                                                                                                     1542
                                                                                                                                                                                                                                                                           1482
                                                                                                                                                                                                                                                                                                                                1422
                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                      1362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
                                                                              1681
                                                                                                                                     1621
                                                                                                                                                                 1602
                                                                                                                                                                                         1561
                                                                                                                                                                                                                                                1501
                                                                                                                                                                                                                                                                                                     1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                              TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAACATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATGTGGTAGCCACGTCACAACCCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                         GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                     GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                         CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGAG
                                                                                                                                                                                                                                                                                                                                                                                      GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTTGGTCAGCTTCCCCGCCACGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTIGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCCTCTGCAAGGGGACAGGCACCCTCCAGGCCCACCAGCCCGGTTCCCGCGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                       CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                            CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1140
                                                    1780
                                                                                1740
                                                                                                           1721
                                                                                                                                      1680
                                                                                                                                                                 1661
                                                                                                                                                                                            1620
                                                                                                                                                                                                                       1601
                                                                                                                                                                                                                                                1560
                                                                                                                                                                                                                                                                            1541
                                                                                                                                                                                                                                                                                                      1500
                                                                                                                                                                                                                                                                                                                                 1481
                                                                                                                                                                                                                                                                                                                                                           1440
                                                                                                                                                                                                                                                                                                                                                                                      1421
                                                                                                                                                                                                                                                                                                                                                                                                                 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                             1361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   761
```

ð 밁 ð 밁 Ş 밁 δ 문 र् 밁 ફ 밁 S 밁 5 문 S 밁 ð 밁 S 문 á 밁

유 성

362

ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG

60

```
RESULT 9
ADC37380
IID ADC37380
XX ADC37380
XX Nucl
XX Nucl
XX Nucl
XX Nucl
XX Nucl
XX Nucl
XX Inmu
XX Neux
XX I12-J
XX New
PF 03-C
PR 03-C
Inmu
XX Inmu
XX Neux
XX Inmu
XX Neux
XX Inmu
XX Neux
XX Inmu
XX Neux
XX Neu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
    Query Match
Best Local Similarity
Matches 1937; Conserv
                                                                                                                                   The present invention relates to novel proteins and their coding sequences (ADC37168-ADC37455), which activate nuclear factor kappa B kappaB). The proteins and their coding sequences are useful for treat a disease associated with NF-kappaB activation, such as inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AII neurodegenerative diseases, or ischaemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nuclear factor kappa B; NF-kappaB; inflammation; autoimmune diseas cancer; infectious disease; bone disease; AIDS, neurodegenerative disease; ischaemic disease; Antiinflammatory; Immunomodulator; Cytostatic; Antimicrobial; Osteopathic; Anti-HIV; Neuroprotective; Nootropic; Cardiant; Gene therapy; human; gene; d
                                                                                                                                                                                                                                                                                                                                                 New purified protein that activates nuclear factor kappa B (NF. useful for treating inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative dischemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-DEC-2001; 2001JP-00368692.
05-DEC-2001; 2001US-0335829P.
03-OCT-2002; 2002JP-00291302.
04-OCT-2002; 2002US-0415769P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nuclear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADC37380;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADC37380
                                                                                             Sequence
                                                                                                                                                                                                                                                                                                        Claim 4; SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2003-505282/47.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matsuda
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 03-DEC-2002; 2002WO-JP012644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2003048202-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ASAH )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ASAHI KASEI KK.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADC37381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCGTTCTGAATTCTGACGACACCGTGAGCCTTGCTTTGTACTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCACGAC
                                                                                                  2304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATAACCACCTTCATGTTTTGAAATAAATGGGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATAACTACCTTCACGTTTTGAAATAAATGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Muramatsu
       Conservative
                                                                                               BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   kappa
                                                                                                                                                                                                                                                                                                        NO 213; 938pp; English
                                                                                               569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                       96.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                             A; 610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (NF-kappaB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2304
Score 1902; DI
Pred. No. 0;
0; Mismatches
    0
                                                                                             C; 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      activating
                                                                                               G; 489
                                                    BB
                                                                                               Ŧ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1953
                                                    10;
                                                                                               0
       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene,
                                                                                                  ς;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IGTACTTCAAACTCATGGAAGG
                                               Length
         Indels
                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ
                                                                                                  Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ħ
                                                    2304;
         22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           213
                                                                                                                                                                                                                                                                                                                                                                                                                           (NF-kappaB),
                                                                                                                                                                                                                                                                                                                                                                             diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                disease;
       Gaps
                                                                                                                                                                                                                  treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gb
                                                                                                                                                                    AIDS,
                                                                                                                                                                                                                                          (NF
                                                                                                                                                                                                                                                                                                                                                                                or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1860
```

청 음 청

밁 5

121 AGCTACAACACCGACCGATCCGATCACTCCCAGAGGACCTAAGCGTTTTCGA 481 121 AGCTACAACAACACGTCGATCATTTGGGGATTGTACATGAACGACGGACCTCCTCTG 180 11111111111111111111111111111111111
--

중 유 В

ર્શ 밁 ર્શ 밁 8 밁 ર્શ 片

```
음 성 음
                                               5
                                                                       음 성 음
                                                                                                                         ঠ
                                                                                                                                                음 성 음 성
                                                                                                                                                                                                                  음 성
                                                                                                                                                                                                                                                       8 8 8 8
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                        음 성
                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                           닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                    2200
                                                      1861
                                                                         2140
                                                                                                                                1741
 2260
                  1921
                                                                                            1801
                                                                                                             2080
                                                                                                                                                  2020
                                                                                                                                                                   1681
                                                                                                                                                                                     1960
                                                                                                                                                                                                       1621
                                                                                                                                                                                                                         1900
                                                                                                                                                                                                                                          1561
                                                                                                                                                                                                                                                             1840
                                                                                                                                                                                                                                                                               1501
                                                                                                                                                                                                                                                                                                 1780
                                                                                                                                                                                                                                                                                                                   1441
                                                                                                                                                                                                                                                                                                                                                                         1660
                                                                                                                                                                                                                                                                                                                                                                                            1321
                                                                                                                                                                                                                                                                                                                                                                                                              1600
                                                                                                                                                                                                                                                                                                                                                                                                                               1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1141
ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                                  AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCACGAC
                                                                                                                       GCTAGGGACGAACAGCCGIGIGCTCCCACCTCAGGGCCTTGCCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                       CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                    CATCGTTCTGAATTCTGACGACACCGTGAGGCCTGCCTTTGTACTTTAAACTCATGGAAGG
                                                                                                                                                            AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTTGGTTAAA
                                                                                                                                                                                     GAAAGT"
                                                                                                                                                                                               GAAAGTTCTCAGGTTCCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                        GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                          CGTGCCATATCCCAGGAGGACCAGCTGGCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                              GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                      GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCACGAC
                                                                                                             AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCATCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                      GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                              GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
2303
                  1964
                                    2259
                                                     1920
                                                                                           1860
                                                                                                            2139
                                                                                                                                                  2079
                                                                                                                                                                                                       1680
                                                                                                                                                                                                                                                                              1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1260
                                                                         2199
                                                                                                                               1800
                                                                                                                                                                                    2019
                                                                                                                                                                                                                                          1620
                                                                                                                                                                                                                                                             1899
                                                                                                                                                                                                                                                                                                1839
                                                                                                                                                                                                                                                                                                                   1500
                                                                                                                                                                                                                                                                                                                                     1779
                                                                                                                                                                                                                                                                                                                                                       1440
                                                                                                                                                                                                                                                                                                                                                                         1719
                                                                                                                                                                                                                                                                                                                                                                                           1380
                                                                                                                                                                                                                                                                                                                                                                                                             1659
                                                                                                                                                                                                                                                                                                                                                                                                                              1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                 1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1539
                                                                                                                                                                                                                         1959
```

ADC37378 standard; 2304 дB

ADC37378;

18-DEC-2003 (first entry)

Nuclear factor kappa B (NF-kappaB) activating gene, Ħ

RESULT 10
ADC37378
ID ADC37
XX ADC37
XX ADC37
XX ADC37
XX Uccle
XX Nucle
Nuclear factor kappa B; NF-kappaB; inflammation; autoimmune disecancer; infectious disease; bone disease; AIDS; neurodegenerative disease; ischaemic disorder; Antiinflammatory; Immunomodulator; Cytostatic; Antimicrobial; Osteopathic; Anti-HI Neuroprotective; Nootropic; Cardiant; Gene therapy; human; gene; thic; Anti-HIV; human; gene; ds. disease;

δ

멍

ફ 밁 Ş В S В ઇ 밁 S 뮍 δ B S 밁 S

음 성 음

```
S
                      문
                                         ঠ
                                                                       밁
                                                                                          ঠ
                                                                                                                밁
                                                                                                                                       S
                                                                                                                                                                   밁
                                                                                                                                                                                     S
                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Simi
Matches 1936;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-DEC-2001;
05-DEC-2001;
03-OCT-2002;
04-OCT-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to novel proteins and their coding sequences (ADC37168-ADC37455), which activate nuclear factor kappa B (NF-kappaB). The proteins and their coding sequences are useful for treating a disease associated with NF-kappaB activation, such as inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases, or ischaemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New purified protein that activates nuclear factor kappa B (NF-useful for treating inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative disechemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-DEC-2002; 2002WO-JP012644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (ASAH ) ASAHI KASEI KK.
                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                              421
                                                                       722
                                                                                             361
                                                                                                                      662
                                                                                                                                             301
                                                                                                                                                                   602
                                                                                                                                                                                           241
                                                                                                                                                                                                                   542
                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                   482
                                                                                                                                                                                                                                                                                                                 422
                                                                                                                                                                                                                                                                                                                                                                 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2003-505282/47.
 481
                       782
                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4
                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                      ب
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ
                                                                                                                                   GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                   ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGGGGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                             2304
 GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                     CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                     AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                 AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                  AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                         AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                         CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                      GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                      ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                   ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                   ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; 2001JP-00368692.
; 2001US-0335829P.
; 2002JP-00291302.
; 2002US-0415769P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Muramatsu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ID NO 211;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             BP; 570 A; 609
                                                                                                                                                                                                                                                                                                                                                                                                                        96.8%;
98.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      938pp; English
                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; 636 G; 489 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1900.4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         neurodegenerative diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                     명
                                                                                                                                                                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                                                                                                                                                                                                     10;
                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B (NF-kappaB),
                                                                                                                                                                                                                                                                                                                                                                                                              22;
                                                                                                                                                                                                                                                                                                                                                                                                                                     2304;
                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           မ္
  540
                                               480
                                                                                                                      721
                                                                                                                                                                      661
                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                        6
                                                                       781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                        뭥
                                                                                                                                                                                                                                                                      음 성
                                                                                                                                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
            S
                           밁
                                                    ક
                                                                                 멍
                                                                                                  ঠ
                                                                                                                         昂
                                                                                                                                                   5
                                                                                                                                                                               밁
                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 음 중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                            1442
                                                                                                                                                                                                                                                                                                                                                                                                                          1382
             1561
                                     1840
                                                                                                                                                                                                                                 1600
                                                                                                                                                                                                                                                                               1540
                                                                                                                                                                                                         1321
                                                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                                                                                             1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1022
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               842
GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                  CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                CGTGCCATATCCCAGGAGGACCAGCTGGCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                               GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                            GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                               GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                       ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTCTTCCACACCCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                             GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                           AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCAACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGCAGTG1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                   COTOCCATATCCCAGGAGGACCAGCTGGCCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                             1560
                                                                                                                                                                                   1719
                                                                                      1839
                                                                                                           1500
                                                                                                                                    1779
                                                                                                                                                            1440
                                                                                                                                                                                                          1380
                                                                                                                                                                                                                                 1659
                                                                                                                                                                                                                                                         1320
                                                                                                                                                                                                                                                                                1599
                                                                                                                                                                                                                                                                                                       1260
                                                                                                                                                                                                                                                                                                                               1539
                                                                                                                                                                                                                                                                                                                                                     1200
                                                                                                                                                                                                                                                                                                                                                                              1501
                                                                                                                                                                                                                                                                                                                                                                                                     1140
                                                                                                                                                                                                                                                                                                                                                                                                                             1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 901
```

```
RESULT 11
ABZ11810
ID ABZ111
XX ABZ11
AC ABZ11
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            몽
                                                                                                 New polynucleotides comprising sequences assembled from expressed sequence tags (ESTs), useful for treating cell-proliferative, neurodegenerative, autoimmune, genetic, myeloid or lymphoid, or plor coagulation disorders.
                                                                                                                                                                                                                                                                                                                                         Tang YT Xue AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; genome mapping; gene therapy; food supplement; virus; fungus; cell-proliferative disorder; neurodegenerative disease; bacterial; Parkinson's disease; Alzheimer's disease; autoimmune disease; multiple sclerosis; diabetes; genetic disorder; wound; burn; infection arthritis; cytostatic; immunomodulator; nouroprotective; antiparkinsonian; antidiabetic; immunosuppressive; dermatological; haemostatic; vulnerary; fungicide; antibacterial; virucide; protozoa; antiarthritic; gene; ss.
                                                   Claim
                                                                                                                                                                                                                                     P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-MAR-2001; 2001US-00799451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-MAR-2002; 2002WO-US005095
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12-SEP-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200270539-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABZ11810 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                       (HYSE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1900
                                                                                                                                                                                                                                     2002-759812/82.
DB; ABP69593.
                                                   1; SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     polynucleotide
                                                                                                                                                                                                                                                                                                              H,
                                                                                                                                                                                                                                                                                                        Zhou P,
Yang Y,
T, Wang J
                                                                                                                                                                                                                                                                                                                                                                                                                    HYSEQ INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGACCCCAGATCACAAAGCCAACCCATGCCCAGCCCCTCCCAGGACCCCCAGCCCCACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTCAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCCCAGCACCCCCAGCCCCACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCATCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAAAGTTCTCAGTTCCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                ID NO 692; 1012pp +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first
                                                                                                                                                                                                                                                                                                              Ç
                                                                                                                                                                                                                                                                                                                                         Ma
                                                                                                                                                                                                                                                                                                              Goodrich RW, Asundi V, Z
Ma Y, Yamazaki V, Chen R,
, Wang D, Drmanac RT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ₽P
                                                Sequence Listing;
                                                                                                                                                                                                                                                                                                                                   Zhang J, 2
R, Wang Z,
                                                English
                                                                                                                                                                                                                                                                                                                                      Zhao QA, I
, Ghosh M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      infection;
                                                                                                                                                                                                                                                                                                                                                                 Ren
                                                                                                                            platelet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2019
```

invention relates to

aп

isolated polynucleotide (I) comprising

829

```
₽
    δ
                                                            밁
                                                                                               S
                                                                                                                                                  문
                                                                                                                                                                                  S
                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99999999999999998<del>%</del>&
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CC nucleotide sequence selected from any of 948 sequences (ABZ11119-CC ABZ12066) or their mature protein coding portion, active domain coding protein or complementary sequences. The polynucleotides are useful for coding identifying expressed genes or for physical mapping of human genome. The encoded polypeptides (ABP68902-ABP6989) are useful as molecular weight markers, as a food supplement, for generating antibodies, in medical commanders, as a food supplement, for generating antibodies, in medical maging, screening and diagnostic assays and for treating cell-complete the discretive dis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Sim
Matches 1904;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
             721
                                                          769
                                                                                                   661
                                                                                                                                                  709
                                                                                                                                                                                            601
                                                                                                                                                                                                                                        649
                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                              589
                                                                                                                                                                                                                                                                                                                                                                          481
                                                                                                                                                                                                                                                                                                                                                                                                                    530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   بر
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                                                                         CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCCCGCCAGTGAGAGGCACTCC
                                                            CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAG
                                                                                     CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                  CTTCCTGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                               AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                          GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                CACATCCAGCGCATCGACCCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAATGCCCATGAACATCCGGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGCTACAACAACGTCGATCATTTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAATACGAAAAAGGGACACCGAGCTGGGGCTGCCAGAGGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGGACGTGGTAGAGGTCGCGGCAGTTGGTGGGCACAAGAGCGACAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2084 BP; 519 A; 571 C; 581 G; 413 T; 0 U; 0 Other;
                                                                                                                                                                                                                                          AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     - ACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1836.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             54;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
             780
                                                            828
                                                                                                      720
                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                              648
                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       222
                                                                                                                                                768
                                                                                                                                                                                            660
                                                                                                                                                                                                                                        708
                                                                                                                                                                                                                                                                                                                                                                                                                    885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   60
```

```
1789
                                                                                                                                                                                                                                                                                                                                                                                                                                   1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1369
                                                                                                                                                                                                                                                                                                                                                                                                   1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1129
              1801
                                                                                                                                                     1681
                                                                                                                                                                                                                                                            1669
                                                                                                                                                                                                                                                                                             1561
                                                                                                                                                                                                                                                                                                                               1609
                                                                                                                                                                                                                                                                                                                                                                  1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1009
                                                                                                                                                                                                                           1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCTAGGGACGAACAGCCGTGTGCCCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG 1140
AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCACGAC
                                                                   AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTTGGTTAAA
                                                                                                                                                                                           GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                             GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT 1680
                                                                                                                                                                                                                                                                                                                                                   CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                    CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                        CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTIGGTCAGCTICCCCGCCACGGGCACCTCGTICTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCAACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                              GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                   CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCGCGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1128
                                                                                   1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1008
                                                                                                                      1848
                                                                                                                                                                                           1788
                                                                                                                                                                                                                                                                                                                                   1668
                                                                                                                                                                                                                                                                                                                                                                                                    1608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
```

8 8 8 8 8 8 8 8 8 8 8 8 8

뮹

δ 밁 S 밁 S 밁 र् 밁 S 밁 δ 멍 S В S 밁 ঠ 밁 ક 밁 S

S

13

AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA

120

282

AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG

성 음

121

밁

```
RESULT 12
ADM44328
ID ADM44
XX B8; 9
KW 88; 9
KW 9enet
XX Genet
XX Homo
PN US200
XX 118-MA
XX 21-NC
PF 21-NC
XX CTANG
PR 05-MA
PR 20-AU
XX (TANG
PR (XUEDA
PR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
밁
                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                Query Match
Best Local Similarity
Matches 1904; Conserv
                                                                                                                                                                                                                                                       The invention relates to an isolated polynucleotide. The methods and compositions of the present invention are useful for the diagnosis and/or treatment of diseases or conditions associated with aberrant expression or activity of the arginine-rich protein-like polypeptides, such as cancer and inflammation. They can also be used in forensics, gene mapping, identification of mutations responsible for genetic disorders, and in assessing biodiversity. The present sequence represents a novel human arginine-rich protein cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New isolated arginine-rich protein-like polynucleotides and polypeptides, useful for diagnosing and/or treating conditions associated with aberrant activity of the arginine-rich polypeptides, such as cancer and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       05-MAR-2001; 2001US-00799451
05-MAR-2002; 2002WO-US005095
20-AUG-2002; 2002US-00225251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       genetic
                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             21-NOV-2002; 2002US-00302172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18-MAR-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ss; gene; human; arginine-rich protein; cancer; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-JUN-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADM44328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (TANG/) TANG Y T.
(XUEA/) XUE A.
(DRMA/) DRMANAC R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADM44328;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2004-238579/22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ΥT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human
                             ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGG
                                                                                                                                                                                                            2084 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Xue A,
                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  arginine-rich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ×
                                                                                                                                                                                                            519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Drmanac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ĕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDNA;
                                                                                                                                 93.5%;
                                                                                                                                                                                                            A; 571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              692; Slpp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        꼅
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein
                                                                                                        Score 1836.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                            C; 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ВÞ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDNA #692
                                                                                                                                                                                                               G; 413
                                                                                                                                                                                                               H,
                                                                                                                                                              BB
                                                                                                           6;
                                                                                                                                                                                                                 o
U,
                                                                                                                                                           12;
                                                                                                           Indels
                                                                                                                                                                                                                 0
                                                                                                                                                         Length 2084;
                                                                                                                                                                                                                 Other,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1964
                                                                                                           54;
                                                                                                           Gaps
                                                        60
        222
                                                                                                           ۲
```

```
ð
                                                  밁
                                                           δ
                                                                          밁
                                                                                        ર્
                                                                                                        닭
                                                                                                                  ફ
                                                                                                                                    밁
                                                                                                                                              중 유
                                                                                                                                                                          δ
                                                                                                                                                                                            음 성 음
                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                             ઇ
        S
                     밁
                                                                                                                                                                                                                                                                           D
                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                   음 성 음
                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                               र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
         1201
                                                                1081
                                                                                                         1069
                                                                                                                                     1009
                                                                                                                      961
                                                                                                                                                                949
                                                                                                                                                                              841
                                                                                                                                                                                            688
                                                                                                                                                                                                                        829
                                                                                                                                                                                                                                                                                           601
                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                          781
                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                    769
                                                                                                                                                                                                                                                                 661
                                                                                                                                                                                                                                                                                                           649
                                                                                                                                                                                                                                                                                                                        541
                                                                                                                                                                                                                                                                               709
                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                          463
                                                                                                                                                                                                                                                                                                                                                                                                                                       301
                                                                                                                                                                                                                                                                                                                                                                                                                                                      403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             283
                                                                                                                                                                                                                                                                                                         AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                            GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                     AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCA
                                                                                                                                   ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                        CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                           GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                         CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                       TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                               TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                             CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                       CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                  - ACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                           AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGAGGCCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                          GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1200
                                                              1140
                                                                            1188
                                                                                           1080
                                                                                                        1128
                                                                                                                      1020
                                                                                                                                    1068
                                                                                                                                                  960
                                                                                                                                                                1008
                                                                                                                                                                              900
                                                                                                                                                                                            948
                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                       888
                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                   828
                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                               768
                                                                                                                                                                                                                                                                                            660
                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                      648
                                                                                                                                                                                                                                                                                                                                                                 588
                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                         522
                                                                                                                                                                                                                                                                                                                                                                                                                                       360
                                                                                                                                                                                                                                                                                                                                                                                                                                                     462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 402
                                                                                                                                                                                                                                                                                                          708
                                                                                                                                                                                                                                                                                                                                                                                             529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 į
                                                                                                                                                                       유
                                                                                                                                                                                                  밁
                                                                                                                                                                                                           S
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                    닭
                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    원. B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
```

```
1969
                                                                                         1861
                                                                                                                                                                                                                                               1789
                                                                                                                                                                                                                                                                                                         1729
                                                                                                                                                                                     1849
                                                                                                                                                                                                                1741
                                                                                                                                                                                                                                                                                                                                        1621
                                                                                                                                                                                                                                                                                                                                                                      1669
                                                                                                                                                                                                                                                                                                                                                                                                   1561
                                                                                                                                                                                                                                                                                                                                                                                                                                 1609
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1309
ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                            CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                  AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                         GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                             GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                        GCTAGGGACGAACAGCCGTGTGCCTCCCACCTTGAGGGCCTTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCACGAC
                                                                                                                                                     AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCACGAC
                                                                                                                                                                                                                                               AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCATCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                      GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTTGGTCAGCTTCCCCGCCACGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                         1920
                                                                                                                                                     1860
                                                                                                                                                                                                                                             1848
                                                                                                                                                                                                                                                                                                         1788
                                                                                                                                                                                                                                                                                                                                        1680
                                                                                                                                                                                                                                                                                                                                                                      1728
                                                                                                                                                                                                                                                                                                                                                                                                                                 1668
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1368
                                                                                                                         1968
                                                                                                                                                                                    1908
                                                                                                                                                                                                                1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1440
```

ABZ11809 standard; CDNA; 2072

20-JAN-2003 (first

Human polynucleotide SEQ ID NO 691.

ABZILION
ABZILI
XX ABZILI
XX ABZILI
XX ABZILI
XX 20-JA
DT 20-JA
XX Human
XX Human
XX Human
XX Human
XX multi
XW multi
XW multi
XW artia
XW artia
XX Antia
XX MOZ000 Human; genome mapping; gene therapy; food supplement; virus; fungus; cell-proliferative disorder; neurodegenerative disease; bacterial; Parkinson's disease; Alzheimer's disease; autoimmune disease; multiple sclerosis; diabetes; genetic disorder; wound; burn; infection arthritis; cytostatic; immunomodulator; noctropic; neuroprotective; antiparkinsonian; antidiabetic; immunosuppressive; dermatological; haemostatic; vulnerary; fungicide; antibacterial; virucide; protozoa; antiarthritic; gene; ss protozoacide infection;

WO200270539-A2

```
밁
                     S
                                                    밁
                                                                           Ś
                                                                                                        ₽
                                                                                                                                  ঠ
                                                                                                                                                        吊
                                                                                                                                                                                      Ś
                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                         CC nucleotide sequence selected from any of 948 sequences (ABZ11119-CR ABZ12066) or their mature protein coding portion, active domain coding cortein or complementary sequences. The polynucleotides are useful for CC identifying expressed genes or for physical mapping of human genome. The encoded polypeptides (ABP68902-ABP6984) are useful as molecular weight CC markers, as a food supplement, for generating antibodies, in medical cimaging, screening and diagnostic assays and for treating cell-cC proliferative disorders (cancer), neurodegenerative diseases (Parkinson's CC or Alzheimer's disease), autoimmune diseases (multiple sclerosis, CC diabetes, lupus) genetic disorders, wound, burns, incision, ulcers, liver CC or lung fibrosis, infections (bacterial, viral, fungal, parasitic), CC arthritis, etc. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format CC directly from WIPO at fip.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                    Matches 1892;
                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New polynucleotides comprising sequences assembled from expressed sequence tags (ESTs), useful for treating cell-proliferative, neurodegenerative, autoimmune, genetic, myeloid or lymphoid, or populations.
                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2002-759812/82.
P-PSDB; ABP69592.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-MAR-2001; 2001US-00799451.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Wehrman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 coagulation disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             invention relates
523
                         361
                                                    463
                                                                              301
                                                                                                         403
                                                                                                                                   241
                                                                                                                                                              343
                                                                                                                                                                                                                    283
                                                                                                                                                                                         181
                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                163
                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HYSEQ
                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Zhou P, Goodrich RW, Asundi V, Yang Y, Ma Y, Yamazaki V, Chen T, Wang J, Wang D, Drmanac RT;
              AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                   GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                         ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                         2072 BP; 525 A; 568 C; 577 G; 402 T; 0 U; 0 Other;
AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAGGGCAAGAGGTCATCTGAG
                                                    GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                           ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                          ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                        AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                      AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQ ID NO 691; 1012pp
                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2002WO-US005095
                                                                                                                                                                                                                                                                                                                                                                                                 92.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           to an
                                                                                                                                                                                                                                                                                                                                                                                   Score 1812.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           isolated polynucleotide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      +
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence Listing;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ynucleotide (I) comprising 948 sequences (ABZ11119-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         æ
                                                                                                                                                                                                                                                                                                                                                                                                              DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Zhang
                                                                                                                                                                                                                                                                                                                                                                                    6,
                                                                                                                                                                                                                                                                                                                                                                                                              <u>د.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wang
                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Zhao QA,
, Ghosh
                                                                                                                                                                                                                                                                                                                                                                                    66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Z
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              platelet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ren
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IJ
                         420
                                                    522
                                                                                360
                                                                                                         462
                                                                                                                                                                402
                                                                                                                                                                                         240
                                                                                                                                                                                                                    342
                                                                                                                                                                                                                                                                           282
                                                                                                                                                                                                                                                                                                                                                           60
582
                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                 밁
                            S
                                                                밁
                                                                                     5
                                                                                                                      밁
                                                                                                                                         S
                                                                                                                                                                          밁
                                                                                                                                                                                                   S
                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                        1417
                                                                                                                                                                                                                                 1297
                                        1441
                                                                                                                                                                                                        1261
                                                                                                                                                                                                                                                                                         1237
                                                                                                                                                                                                                                                                                                                                              1177
                                                                                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             703
                               CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                  GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                ATTIGGTCAGCTICCCCGCCACGGGCACCTCGTICTICCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                              GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                  AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCACCCTGCGCCTGTGGGAACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCGGCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATCGATACGGAACCAAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                              GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                         GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                              GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                   NAGCAT CTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCAACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG
                                                                   GACCTGGACGTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATCTCTCTCGGG
                                                                                                                                                                                                         1320
                                                                                                                                                                                                                                                                                                                   1200
                                                                                            1440
                                                                                                                         1476
                                                                                                                                                 1380
                                                                                                                                                                              1416
                                                                                                                                                                                                                                    1356
                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                                                                                         1296
                                                                                                                                                                                                                                                                                                                                              1236
                                                                                                                                                                                                                                                                                                                                                                        1140
                                                                                                                                                                                                                                                                                                                                                                                                   1176
                                                                                                                                                                                                                                                                                                                                                                                                                              1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1056
               1596
                                         1500
                                                                   1536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             923
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             762
```

```
RESULT 14
ADM44327
ID ADM44
XX ADM44
XX ADM44
XX ADM44
XX BS; 9
KW BS; 9
KW Genet
XX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 중 유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                  05-MAR-2001;
05-MAR-2002;
20-AUG-2002;
                                                                           New isolated arginine-rich protein-like polynucleotides and polypeptides, useful for diagnosing and/or treating conditions associated with aberrant activity of the arginine-rich polypeptides, such as cancer and
                                                                                                                                                                                                                                                    (TANG/)
(XUEA/)
(DRMA/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADM44327
                       Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                    21-NOV-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                18-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US2004053250-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         genetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-JUN-2004
                                                                inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1597
                                                                                                                                                                                                           TY.
                                                                                                                                                                      2004-238579/22.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     human
                                                                                                                                                                                                                                                  TANG Y T.
XUE A.
DRMANAC R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         disorder
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATAACTACCTTCACGTTTTGAAATAAATGTTTTCCTGTTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCCCCAGCACCCCCACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTATTTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCATCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGSTGAGATCGGCTTTCGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                           Xue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            human;
                       SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   arginine-rich
                                                                                                                                                                                                                                                                                                                                  2001US-00799451.
2002WO-US005095.
2002US-00225251.
                                                                                                                                                                                                                                                                                                                                                                                                                      2002US-00302172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first
                                                                                                                                                                                                         Ņ
                                                                                                                                                                                                                                                      æ
                       Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            arginine-rich
                                                                                                                                                                                                           Drmanac
                                                                                                                                                                                                                                                      н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDNA;
                       ĕ
                       691;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2072
                                                                                                                                                                                                             RT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   protein cDNA
                   51pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein;
                     English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1656
```

```
밁
                  δ
                                                밁
                                                                 Ş
                                                                                                 밁
                                                                                                                    S
                                                                                                                                                                     Ś
                                                                                                                                                                                                    밁
                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2222222223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Sim
Matches 1892;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to an isolated polynucleotide. The methods and compositions of the present invention are useful for the diagnosis and/or treatment of diseases or conditions associated with aberrant expression or activity of the arginine-rich protein-like polypeptides, such as cancer and inflammation. They can also be used in forensics, gene mapping, identification of mutations responsible for genetic disorders, and in assessing biodiversity. The present sequence represents a novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         human arginine-rich protein cDNA.
                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
 924
                        781
                                                 883
                                                                                                  823
                                                                                                                         661
                                                                                                                                                  763
                                                                                                                                                                           601
                                                                                                                                                                                                    703
                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                   643
                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                     583
                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                       523
                                                                                                                                                                                                                                                                                                                                                                                361
                                                                                                                                                                                                                                                                                                                                                                                                         463
                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                           403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2072
                                                            CATGTGGTAGCCACGTCACAACCCAAGACCCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                   AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                   GATCGATACGGAACCAAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                      CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                       AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                             AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAGAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                       GGAATGCCCATGAACATCCGGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                  CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                    CTTCCTGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                    AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                     GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                     CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                         GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCGAACACTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATGGACGTGGTAGAGGTCGCGGCAGTTGGTGGGCACAGAGCGAGAGGACATCATTATG
                        ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BP; 525 A; 568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         92.3%;
96.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               °;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1812.4;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; 577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G; 402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                H
''
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0 Other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
 GATCTCTCTCGG
                                                   ---------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2072;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     120
 936
                          840
                                                923
                                                                        780
                                                                                                  882
                                                                                                                         720
                                                                                                                                                  822
                                                                                                                                                                          660
                                                                                                                                                                                                   762
                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                            540
                                                                                                                                                                                                                                                                                                     642
                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                       582
                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                         522
                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                           462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                   702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              222
```

S

841

CTCACCCTGCGCCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA

```
1441
                                                                                                                                                                                                                                                                          1777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1117
2017
                               1921
                                                                                                   1861
                                                                                                                                     1897
                                                                                                                                                                      1801
                                                                                                                                                                                                      1837
                                                                                                                                                                                                                                                                                                          1681
                                                                                                                                                                                                                                                                                                                                            1717
                                                                                                                                                                                                                                                                                                                                                                                                             1657
                                                                                                                                                                                                                                                                                                                                                                                                                                               1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1057
                                                                                                                                                                                                                                                                                                                                                                            1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                     ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                               AGACCCCAGATCACAAAGCCAACCATGCCCCAGCCCCTCCCAGCACCCCCCAGCCCCAGCCACGAC
                                                                                                                                                                                                                                                                                          AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                            GAAAGTTCTCAGTTCC
                                                                                                                                                                                                                                                                                                                                                             GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                               GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG 1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCCGGCCCTGGCTCAG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCAACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
 ATAACCACCTTCATGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                                                                                                                                                                                        CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGTTCAGAGATGGAACACACC 1800
                                                                                                                                                                                                                                                                            AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCATCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                               GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
 2060
                                 1964
                                                                     2016
                                                                                                                                      1956
                                                                                                                                                                      1860
                                                                                                                                                                                                        1896
                                                                                                                                                                                                                                                                            1836
                                                                                                                                                                                                                                                                                                                                                                             1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            996
```

ঠ

B S 닭 S

밁

밁 ð 밁 S 밁 S 밁 δ 밁

문 ঠ 밁 ঠ 유 ક 밁 5

935

994

ð 밁 S

밁

श्च 밁 S 밁 Ş 밁 ક 밁 ঠ

밁

```
RESULT 15
ADC37388
ID ADC373
XX
AC ADC37
XX
Nucle
XX
Nucl
음 중
                                                                           밁
                                                                                                                                 S
                                                                                                                                                                                           밁
                                                                                                                                                                                                                            ঠ
                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to novel proteins and their coding sequences (ADC37168-ADC37455), which activate nuclear factor kappa B (NF-kappaB). The proteins and their coding sequences are useful for treating a disease associated with NF-kappaB activation, such as inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases, or ischaemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-DEC-2001; 2001JF-00368692
05-DEC-2001; 2001US-03358292
03-OCT-2002; 2002JF-00291302
04-OCT-2002; 2002US-0415769F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New purified protein that activates nuclear factor kappa B (NF-kappaB), useful for treating inflammation, autoimmune diseases, cancers, infectious diseases, bone diseases, AIDS, neurodegenerative diseases or ischemic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nuclear factor kappa B; NF-kappaB; inflammation; autoimmune diseasu cancer; infectious disease; bone disease; AIDS; neurodegenerative disease; ischaemic diseorder; Antiinflammatory; Immunomodulator; Cytostatic; Antimicrobial; Osteopathic; Anti-HIV; Neuroprotective; Nootropic; Cardiant; Gene therapy; human; gene; d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 4; SEQ ID NO 221; 938pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-DEC-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-DEC-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADC37388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADC37388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO2003048202-A2
                                        181
                                                                                                                                                                                                                                                                                                                                                                                           1888;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2003-505282/47.
                                                                                                                                                                                                                                                                                           755
                                                                                                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADC37389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      þ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ASAHI
                         ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                    ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      standard;
                                                                                                                      AGCTACAACAACCACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                            AAATACGAAAAGGGACACCGAGCTGGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                             AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                             AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Muramatsu
                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2002WO-JP012644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP; 608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KASEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           즛
                                                                                                                                                                                                                                                                                                                                                                                                             92.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           တ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (NF-kappaB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      766 C;
                                                                                                                                                                                                                                                                                                                                                                                      Score 1809; Di
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        activating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         G; 523
                                                                                                                                                                                                                                                                                                                                                                                                                                           멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Τ,
                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ς.
                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 2647;
                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ħ
                                                                                                                                                                                                                                                                                                                                                                                           66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           221
                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                60
                                                240
                                                                                                934
                                                                                                                                                180
                                                                                                                                                                                                874
                                                                                                                                                                                                                                                120
                                                                                                                                                                                                                                                                                             814
```

721 CARGGERITICACACCCAAAIGACCATGGACCATCAAGACCTACAAGACCAACAGAACCAACAGAACCAACAGAACCAACAGAACCAACAGAACCAACAGAACCAACAGAACCAACAGAACCAACAGACCAACAGACCAACAGACCAACAGACCAACAGACCAACAGACCAACAGACCAACAGACCAACAGACCAACAGACCAACAGACCAACAGACCAACACCAACACCAACACCAACACCAACACCAACACCAACAC	241 ATGCTGGGAGACTGGGAGAAATACAAAAGCAGGAAAAGCTCATAGATCGAGCGTACAAG
---	---

8 8 8 8 8 8 8

B & B &

8 8 8 8 8 8

8888

음 성

2609 ATAACCACCTTCATGTTTTGAAATAAATGTTTCCTGTTG 2647	Дb
1921 ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTG 1959	Qy
2549 CATCGTTCTGAATTCTGACGACCACCGTGAGCCTGCCTTTGTACTTCAAACTCATGGAAGG 2608	Ъ
1861 CATCGTTCTGAATTCTGAACGACACCGTGAGCCTTGCCTTTGTACTTTAAACTCATGGAAGG 1920	Ş
2489 AGACCCCAGATCACAAAGCCAACCCATGCCCCTCCCAGCACCCCCAGCCCCCAGCCCCCCCC	Ф
1801 AGACCCCAGATČACAAAGCCAACCCATGCCCAGGCCCTCCCAGGCACCCCCACGAC 1860	Q
2429 CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGA	DЬ
1741 CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGA	Ş
2369 AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCATCCTCGTTTTATTTTTTGGTTAAA 2428	Дb
1681 AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTTGGTTAAA 1740	Ş
2309 GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT 2368	DЬ
1621 GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT 1680	Ş
2249 GCTAGGGACGACACCTCGTGTGCTCCCACCTCAGGGCCTTCTCTGCGGCCTCCACTTG 2308	Db
1561 GCTAGGGACGAACAGCCGTGTGCCTCCCACCTCAGGGCCTTGCCCTCTGCGGCCTCCACTTG 1620	δ
2189 CGGGTGAGATCGGCTTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA 2248	Db
1501 CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA 1560	Ş
2129 CGTGCCATATCCCAGGAGGACCAGCTGGCCCCTGCTGGCAGGCTGAACACCCTGCGGAG 2188	뮹
1441 CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG 1500	Ş
2069 GACCTGGACGTAGAGGGCCCTTGGTTCCGCCATTATGATTTCAGACAGA	Дb
1381 GACCTGGACGTAGAGGGCCCTTGGTTCCGCCATTATGATTTCAGACAGA	Ş
2009 GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG 2068	дb
1321 GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCCATGCCCCGCCTCCCAACG 1380	Q

Search completed: April 5, 2006, 13:32:41 Job time : 821 secs

음 성

8 8 8 8 8 8

S

음 성 음

This Page Blank (uspto)

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                         00
                                                                                                                                                                            იი
                                                                                                                                                                                                                                                              000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Post-processing: Minimum Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Total number
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to score greater than or equal to the score of the result being and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                    1836.4
1812.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멂
                                                                                                                                                                                                                                                                                                                                                                                                                                      Score
                                                                                                                                                                                                       72.6
70
70
                                                                                                                                                                                                                                              92
74.2
74
74
74
72.6
                                                                         53.64
53.64
55.44
55.44
55.44
55.44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     seq
geq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Issued_Patents_NA:*

1: /cgn2_6/ptodata/l/ina/1_COMB.seq:*

2: /cgn2_6/ptodata/l/ina/5_COMB.seq:*

3: /cgn2_6/ptodata/l/ina/6A_COMB.seq:*

4: /cgn2_6/ptodata/l/ina/6B_COMB.seq:*

5: /cgn2_6/ptodata/l/ina/PCTUS_COMB.seq:*

6: /cgn2_6/ptodata/l/ina/PCTUS_COMB.seq:*

7: /cgn2_6/ptodata/l/ina/PE_COMB.seq:*

9: /cgn2_6/ptodata/l/ina/RE_COMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     length:
                                                                                                                                                                                                                                                                                                                                                                                                                                      Query
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gapop 10.0 ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1303057 seqs, 888780828 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IDENTITY_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-10-071-838-1
1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  April
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                       atggacgtggtagaggtcgc.....aaatgtttcctgttgaaatg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Copyright
                                                                                                                                                                                                                                                                                                                                                                                                                                    Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5,
     6453
6453
1981
1981
1823
1982
1823
7216
806
4039
69199
1887
1887
2066
2066
2055
3039
3039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000000000
                                                                                                                                                                                                                                                                                                                121
1925
187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2006, 13:54:55; Search time 362 Seconds (without alignments) 9644.009 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration
                                                                                                                                                                                                                                                                                                                                                                                                                                       BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gapext 1.0
        US-09-799-451-692
US-09-799-451-691
US-08-253-155A-9
US-09-513-990C-13267
US-09-949-016-2139
US-09-949-016-2139
US-09-209-668-10
US-09-209-668-10
US-09-209-688-336
US-09-274-528-336
US-09-277-767-9899
US-09-270-767-13881
US-09-2949-016-51412
US-09-949-016-51412
US-09-949-016-51412
US-09-949-016-513234
US-10-104-047-56
US-09-620-312D-676
US-09-620-312D-675
US-09-007-005-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUMMARIES
                                                                                                                                                                                                       Sequence 692, App
Sequence 91, App
Sequence 9, Appli
Sequence 24808, A
Sequence 2139, Ap
Sequence 14, Appl
Sequence 10, Appl
Sequence 10, Appl
Sequence 8, Appl
Sequence 336, App
Sequence 336, App
                 sequence
sequence
sequence
sequence
sequence
sequence
sequence
sequence
sequence
sequence
sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                    Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ltd
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to have a
being printed,
                                                   14, Appl
10, Appl
10, Appl
11, Appl
715, Appl
715, Appl
336, App
34, Appl
14, Appl
14, Appl
13, Appl
13, Appl
13, Appl
14, Appl
16, Appl
17, Appl
1
675, App
17, Appl
17, Appl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1964
                                                                                                                                                                            APPLICANT: Ghosh, Reena
APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. 6783969el Nucleic.
FILE REFERENCE: 803
CURRENT APPLICATION NUMBER: US/09/799,451
CURRENT FILING DATE: 2001-03-05
NUMBER OF SEQ ID NOS: 948
SOFTWARE: pt-FL_genes Version 2.0
SEQ ID NO 692
LENGTH: 2084
TYPE: DNA
ORGANISM: Homo sapi
                     밁
                                                 S
                                                                                                                                                       ; NAME/KEY: CDS
; LOCATION: (163)..(1755)
US-09-799-451-692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-799-451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequen
                                                                                 Query Match
Best Local Similarity
Matches 1904; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
APPLICANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Batent No. 6783300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Tang, Y. APPLICANT: Zhou, Pi APPLICANT: Goodrich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wang, Jian.

' Ma, Yunging
' Yamazaki, Victoria
T: Chen, Rui-hong
NT: Wang, Zhiwei
NT: Wang, Dunrui
ANT: Yang, Yonghong
ANT: Yang, Yonghong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        37.8
37.8
37.6
37.6
                     163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            . . . . . . . . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4444448888
                                       ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Zhou, Ping
Goodrich, Ryle
Goodrich, Ryle
Asundi, Vinod
Ren, Feiyan
Zhang, Jie
Xue, Aidong J.
Zhao, Qing A.
Wang, Jian-Rui
                     ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Application US/09799451
                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        723
33478
502
4802
15722
17000
17425
3983
3983
3988
1179
97423
97424
1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13987
44377
44377
53799
53799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1984
                                                                                                     96.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-621-976-15639
US-09-949-016-3047
US-08-804-227C-7
US-08-804-227C-7
US-08-804-198-1
US-10-042-665A-3
US-09-270-767-1671
US-09-270-767-1673
US-09-270-767-1673
US-09-949-016-15639
US-09-949-016-16-1709
US-09-949-016-16-1709
US-09-949-016-16-171
US-09-762-311-3
US-09-762-311-3
US-09-949-016-12742
US-09-949-016-12742
US-09-949-016-15576
US-09-949-016-15576
US-09-949-016-15576
US-09-949-016-15576
                                                                                     Score 1836.4;
Pred. No. 0;
0; Mismatches
                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                  Nucleic Acids and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALIGNMENTS
                                                                                                                       B
                                                                                     6
                                                                                                                       ω
--
                                                                                     Indels
                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 15639, A Sequence 3047, Appl Sequence 13, Appli Sequence 7, Appli Sequence 3, Appli Sequence 1491, Appli Sequence 1491, Appli Sequence 13615, A Sequence 15639, A Sequence 16709, A Sequence 7, Appli Sequence 7, Appli Sequence 4, Appli Sequence 4, Appli Sequence 4, Appli Sequence 4, Appli Sequence 15742, A Sequence 15742, A Sequence 15742, A Sequence 15784, Appli Sequence 15782, A Sequence 15784, Appli Sequence 15782, A Sequence 15782, A Sequence 2101, Appli Sequence 15782, A Sequence 2101, Appli Sequ
                                                                                                                       2084
                                                                                     54;
                                                                                     Gaps
                     222
                                                       60
```

0	41 ACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCAGCCAG	11
1140 1248	081 GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG	10
1080	021 AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA	10
1020	961 TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC	
1068	901 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG	10
900	841 CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA	vo m
948	781 GGGCAGTGTTCCCCCGTTAGGCTGCCTCATCCGGATATTGATTG	60 J
780 888	721 CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAAGA	m si
720 828	661 CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGTCCAAGACCAACAGGAG	si n
660 768	601 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC	J 0
600 708	541 AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACTCGCCCCCCTTGTTCCTCCTCTAT	6 UI
540 648	481 GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTATT	4. D
480 588	421 CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG	
420 529	361 AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAGAGGGCAAGAGGTCATCTGAG	ம ை
360 522	301 GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTGCTGAACATTGAGGAAATG	در کا
300 462	241 ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG	.s. N
240 402	181 ACTGCGCGGGAGGCGAAGCAAATTCGGCGGGAGATCAGCCGAAAGAGCAAGTGGGTGG	f.) Le
180	121 AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG	N 4
120 282	61 AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA	N

TG 2072	_	2029	뫄
TG 1964	ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG	1921	ş
CTTCAAACTCATGGAAGG 2028	CATCGTTCTGAATTCTGACGACACCGTGAGCCTTTGTAC	1969	밁
CTTTAAACTCATGGAAGG 1920	CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGG	1861	Ś
CACCCCAGCCCCACGAC 1968	-	1909	চ
CACCCCCAGCCCCACGAC 1860	AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCAGCCCCACGAC	1801	Ş
TCAGAGATGGAACACACC 1908	-	1849	밁
TCAGAGATGGAACACACC 1800	CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGA	1741	Ş
GTTTTATTTTTGGTTAAA 1848	_	1789	В
GTTTTATTTTTGGTTAAA 1740	AATTTCCCTAGGCTTAACAACCCAAGCAAGCTCGCGTCCTCGTTTATTTTTGGTTAAA	1681	Ś
CAGGGCTCATGGCTGGAT 1788	_	1729	닭
CAGGGCTCATGGCTGGAT 1680	GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT	1621	Ś
CTCTGCGGCCTCCACTTG 1728	_	1669	망
CTCTGCGGCCTCCACTTG 1620	GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCCTCTGCGGCCTCCACTTG	1561	Ş
CAGGGCACCCCCTTCAGA 1668	_	1609	₽
CAGGGCACCCCCTTCAGA 1560	CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA	1501	Ş
GCTGAACACCCTGCGGAG 1608	CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG	1549	밁
GCTGAACACCCTGCGGAG 1500	-	1441	१
AGACAGAGCTGCTGGGTC 1548	_	1489	뫄
AGACAGAGCTGCTGGGTC 1440	GACCTGGACGTAGAGGGCCCTTGGTTCCGCCATTATGATTTCAGACAGA	1381	Ş
ATGCCCCGCCTCCCAACG 1488	_	1429	망
ATGCCCCGCCTCCCAACG 1380	GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG	1321	S
AGCCCGGCCCTGGCTCAG 1428	_	1369	당
AGCCCGGCCCTGGCTCAG 1320	GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG	1261	Ş
CCCTGTCCTGGTGGGGCT 1368	ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT	1309	밁
CCCTGTCCTGGTGGGGCT 1260	ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACAC	1201	Ŋ
		1249	₽ D

RESULT 2
US-09-799-451-691
Sequence 691, Application US/09799451
Patent No. 6783969
GENERAL INFORMATION:
APPLICANT: Tang, Y. Tom
APPLICANT: Zhou, Ping
APPLICANT: Goodrich, Ryle
APPLICANT: Asundi, Vinod
APPLICANT: Asundi, Vinod
APPLICANT: Xhang, Jie
APPLICANT: Xhang, Jie
APPLICANT: Wang, Jie
APPLICANT: Wang, Jienar Rui
APPLICANT: Chen, Rui-hong
APPLICANT: Chen, Rui-hong

र[°] है र

음 성

밁 8

유 성 유

중 음 중

밁 S 유

8 8 8 8

중 음 중

밁 δ 음 성

유 성

```
APPLICANT: Wang, Zhiwei
APPLICANT: Wang, Dunrui
APPLICANT: Yang, Yonghong
APPLICANT: Webrman, Tom
APPLICANT: Ghosh, Reena
APPLICANT: Ghosh, Reena
APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. 6783969el Nucleic Aci
TITLE OF INVENTION: Polypeptides
FILE REFERENCE: 803
CURRENT APPLICATION NUMBER: US/09/799,451
CURRENT APPLICATION NUMBER: US/09/799,451
CURRENT FILING DATE: 2001-03-05
NUMBER OF SEQ ID NOS: 948
SOFTWARE: pt_FL_genes Version 2.0
SEQ ID NO 691
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: CDS
LOCATION: (163)..(1743)
US-09-799-451-691
                             음 성 음
                                                                      S
                                                                                      밁
                                                                                                    ð
                                                                                                                   뮍
                                                                                                                                   ち 음 성
                                                                                                                                                                                                 8
                                                                                                                                                                                                                    음 성
                                                                                                                                                                                                                                                                                            5
음 중
                                                                                                                                                                                 밁
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                             ક
                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                         र्
                                                                                                                                                                                                                                                                                                                                                                             Query Match 92.3%;
Best Local Similarity 96.3%;
Matches 1892; Conservative
           661
                                                                          541
                                                                                                         481
                                                                                                                       583
                                                                                                                                      421
                                                                                                                                                      523
                                                                                                                                                                                                                                  241
823
                                                            703
                                                                                                                                                                      361
                                                                                                                                                                                      463
                                                                                                                                                                                                    301
                                                                                                                                                                                                                     403
                                                                                                                                                                                                                                                   343
                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                223
                                                                                                                                                                                                                                                                                                                                              163
                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                             μ.
                                                           AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                   GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                       CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                      AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                    GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                   ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                  AGCTACAACAACGACGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                              AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                             ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                           GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                           ; Score 1812.4; pred. No. 0; O; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Acids
                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                           ٠<u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                          ω
•
                                                                                                                                                                                                                                                                                                                                                                                          Length
                             822
                                                                           600
                                                                                                        540
                                                                                                                        642
                                                                                                                                      480
                                                                                                                                                       582
                                                                                                                                                                     420
                                                                                                                                                                                     522
                                                                                                                                                                                                    360
                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                282
                                                                                                                                                                                                                                                                                                                              120
                                                                                                                                                                                                                                                                                                                                             222
                                            660
                                                           762
                                                                                          702
                                                                                                                                                                                                                     462
                                                                                                                                                                                                                                                   402
                S
                               밁
                                                              밁
                                                                              δ
                                                                                                           5
                                                                                                                              g
                                                                                                                                                                        δ
                                                                                                                                                                                                                                      8
       밁
                                               ঠ
                                                                                                밁
                                                                                                                                          5
                                                                                                                                                             밁
                                                                                                                                                                                           밁
                                                                                                                                                                                                       중 유
                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                 ঠ
                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                           1477
                     1741
                                                                                                 1657
                                                                                                                                                             1537
                                                                                                                                                                                                                           1417
                                                                                                                                                                                                                                                          1357
                                                                                                                                                                                                                                                                                                                                                                                   1117
       1837
                                                                                  1621
                                                                                                                               1597
                                                                                                                                                                             1441
                                                                                                                                                                                                            1381
                                                                                                                                                                                                                                          1321
                                                                                                                                                                                                                                                                                        1297
                                                                                                                                                                                                                                                                                                       1201
                                                                                                                                                                                                                                                                                                                      1237
                                                                                                                                                                                                                                                                                                                                      1141
                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                                   1021
                                                                                                                                                                                                                                                                                                                                                                                                                  1057
                                                                                                               1561
                                                                                                                                                                                                                                                                                                                                                                                                                                961
                                                                                                                                                                                                                                                                                                                                                                                                                                                997
                                                                                                                                                                                                                                                                                                                                                                                                                                                               901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              924
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            781
                                                                 GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT 1680
                                                                                                GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                               CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                            GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                    CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                        GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                     ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATGTGGTAGCCACGTCACAACCCAAGACCÄTGGGGCATCAGGACAAGAAAGATCTATGT
       ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATCTCTCTCGGG
       1896
                                      1836
                                                                                                 1716
                                                                                                                1620
                                                                                                                                1656
                                                                                                                                                                             1500
                                                                                                                                                                                            1536
                                                                                                                                                              1596
                                                                                                                                                                                                            1440
                                                                                                                                                                                                                           1476
                                                                                                                                                                                                                                           1380
                                                                                                                                                                                                                                                          1416
                                                                                                                                                                                                                                                                         1320
                                                                                                                                                                                                                                                                                        1356
                                                                                                                                                                                                                                                                                                        1260
                                                                                                                                                                                                                                                                                                                       1296
                                                                                                                                                                                                                                                                                                                                      1200
                                                                                                                                                                                                                                                                                                                                                     1236
                                                                                                                                                                                                                                                                                                                                                                    1140
                                                                                                                                                                                                                                                                                                                                                                                    1176
                                                                                                                                                                                                                                                                                                                                                                                                   1080
                                                                                                                                                                                                                                                                                                                                                                                                                  1116
                                                                                                                                                                                                                                                                                                                                                                                                                                 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
```

OY 181 ACTGCGCGGGAGGCGAAGCAAATTCGGCGGGAGATCAGCCGAAAGAGCAAGTGGGTGG	QY 121 AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG 180	61 AATTACGAAAAGGACACCGACTGGCCTGCCACAGGACAAGGGGCCTTAGCCTTTTCGA 	1697 ATGGACATGGTAGAGAATGCAGATAGTTTGCAGGCACAGGAGCGGAAGGACATACTTATG	Matches 1332	9%; Score 999; DB 2; Length 8201; 8%; Pred. No. 1.2e-263;	STRANDI TOPOLOO MOLECULE S-08-253-1551		11 12	CLASSIFICATION: 435 ATTORNEY/AGENT INFORMAT: NAME: Vincent, Matthe REGISTRATION NUMBER:		; COMPUTER READABLE FORM: ; MEDIUM TYPE: Floppy disk ; COMPUTER: IBM PC Compatible ; OPERATING SYSTEM: PC-DOS/MS-DOS	CITY: E STATE: COUNTRY:		GENERAL INFORMATION: APPLICANT: Gyuris, Jeno APPLICANT: Draetta, Giulio APPLICANT: Draetta, Giulio	RESULT 3 US-08-253-155A-9 ; Sequence 9, Application US/08253155A : Parent No 5691147	Db 2017 ATAACCACCTTCATGTTTTGAAATAAATGTTTCCTGTTGAAATG 2060	1957 CATCGTTCTGAACTCGACCACCGTGAGCCTGCCTTTGTACTTCAAACTCATGGAAGG	1801 1897
D Q	S B	& B	& B	Ş	문 <i>원</i>	Qy Db	g Qy	g Qy	D Qy	B 8	B &	Qy Db	Qy	D 9	p <i>9</i>	D Qy	D 9	d dd
	2894 ACCCCTCCCTCTGGGATCAGCAGACTACAGGGGGTGTCGTCAGTGTCAGACCACAGGGGCC 2953	2834 GGGGCAGTCCCAGGAGCCACCCATGCCCCAACGGCTTCCCCCATGCCAGGCAGCACAC 2893	2774 GGCCCAACAGCCCTGGGACGAAGGTGTGTGGCAGGAAGCCCCCAGCCAG	1079 1078	1021 AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCC 1078	TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC	901 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG 960	841 CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA 900	781 GGGCAGTGTTCCCCGGTTAGGCTGCCTCATCCGGATATTGATTG	721 CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAACATCTATGT 780	CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG	601 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGCCAGTGAGAGGCACTCC 660	541 AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT 600	481 GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 540	421 CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG 480	361 AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGAGGCAAGAGGTCATCTGAG 420 	301 GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG 360	241 ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG 300 1934 ATGCTGGGAGAATGGGAGACATATAAGCACAGTAGCAAACTCATAGATCGAGTGTACAAG 1993

```
TITLE OF INVENTION: Expressed Sequence Tags and Enc. 6783961
FILE REFERENCE: 59.US2.REG
CURRENT APPLICATION NUMBER: US/09/513,999C
CURRENT FILING DATE: 2000-02-24
PRIOR APPLICATION NUMBER: US 60/122,487
PRIOR APPLICATION NUMBER: US 60/122,487
PRIOR FILING DATE: 1999-02-26
NUMBER OF SEQ ID NOS: 36681
SOFTWARE: Patent.pm
SEQ ID NO 24808
LENGTH: 121
TYPE: DNA
US-09-949-016-2139

US-09-949-016-2139, Application US/09949016

; Patent No. 6812339
                                                                                                                                                                           S
                                                                                         밁
                                                                                                                   δ
                                                                                                                                               밁
                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                             ; ORGANISM: Homo sapiens US-09-513-999C-24808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
US-09-513-999C-24808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 24808, Appearent No. 6783961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Dumas Milne Edwards, J.B. APPLICANT: Duclert, A. APPLICANT: Giordano, J.Y.
                                                                                                                                                                                                                                                                    Local Similarity
nes 121; Conserv
                                                                                                                                                                              1797
                                                                                                                                                                                                                          3374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3074
                                                                                         121
                                                                                                                                                61
                                                                                                                                                                                                        ი
                                                                                         O.
                                                                                                                                                                   CACCAGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACCTGCTGGCAGGCTGAACACTGCGGAGAG 3404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCCTGCTGGCAGGCTGAACACCCTGCGGAG 1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCATTATGATTTTGAACGGAGCTGCTGGGTCCGTGCCATATCCCAGGAGGACCAGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCATTATGATTTCAGACAGAGCTGCTGGGTCCGTGCCATATCCCCAGGAGGACCAGCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCAGTGGAACTCCATGCCCCGCCTCCCAACGGACCTGGACGTAGAGGGCCCTTGGTTCCG 1409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCAGGGTGTGCCCAGCCTGGCCCTGGCTCAGGGACGACCTCAGGGTTCCTGGAGATTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCAGGGTGTGCCCAGCCCGGCCCTGGCTCAGGGAGGACCTCAGGGTTCCTGGAGATTCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCGTTCTTCCACACCCTGTCCTGGTGGGGCTGTCCGGGAAGACACCTACCCTGTGGGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCAGGCCCACCAGCCCAGTTCCAGCGCCCATTTGCTCAGCTTCCCCGCCATGGGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCAGGCCCACCAGCCCGGTTCCCCGCGGCCATTTGGTCAGCTTCCCCGCCACGGGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1857
                                                                                         121
                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/09513999C
                                                                                                                                                                                                                                                                 6.2%; Score 121; DB 3; 100.0%; Pred. No. 2.6e-23; 7ative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Encoded Human Proteins.
                                                                                                                                                                                                                                                                                             Length 121
                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                            1856
                                                                                                                                                120
                                                                                                                                                                                                          60
                                                                                                                                                                                                                                       1796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1289
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3073
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1469
                                                                                                                                                                                                                                                                 0
```

ဝူ

OTHER INFORMATION: k=g FEATURE: NAME/KEY: misc_feature

```
GENERAL INFORMATION:
APPLICANT: Dunas Milne Edwards, J.B.
APPLICANT: Duclert, A.
APPLICANT: Giordano, J.Y.
TITLE OF INVENTION: Expressed Sequence Tags and
Patent No. 6783961
Patent No. 6783961
FILE REFERENCE: 59.US2.REG
CURRENT APPLICATION NUMBER: US/09/513,999C
CURRENT FILING DATE: 2000-02-24
NUMBER OF SEQ ID NOS: 36681
SOFTWARE: Patent.pm
SEQ ID NO 13267
LENGTH: 187
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                            US-09-513-999C-13267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; ORGANISM: Human US-09-949-016-2139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILE REFERENCE: CL001307
CURRENT APPLICATION NUMBER: US/09/949,016
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
PRIOR FILING DATE: 2000-09-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 152; Conserv
                                                                                                                                                                                                                                                                                                                                                Sequence 13267, Application US/09513999C Patent No. 6783961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: FastSEQ for Windows Version SEQ ID NO 2139 LENGTH: 1925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL IMPORMATION:

APPLICANT: VENTER, J. Craig et al.

TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED

TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
                                                                                                                          PRIOR APPLICATION NUMBER: US 60/122,487 PRIOR FILING DATE: 1999-02-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQ ID NOS: 207012
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                602
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    118 ACATCAGACAAATAGACCTGGATGTCAACCGCACATTTCGGGGACCACATTATGTTTAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        422 ACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGGG 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCAGGGATTTC 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACACGGAAGTCGGGTATTGTCAGGGGATGAGCCAGATCACAGCTTTACTCCTCATGTATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      atcgatacggaaccaagcagcgggaactactccacatcctcctgcatatgaggagtata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGCATGAACATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGAACGAGGAAGATGCCTTCTGGGCCCTGGTCAAACTCTTCTCAGGCCCTAAACATGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4.7%;
ilarity 60.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 92; DB 3; Le
Pred. No. 8.1e-15;
0; Mismatches 100;
                                                                                                                                                                                                                                                  and
                                                                                                                                                                                                                                                  Encoded Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                  Proteins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0
```

```
밁
                       5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; OTHER INFORMATION: y=c
US-09-513-999C-13267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-08-306-691B-14/c
                                                                                                                      US-08-306-691B-14
                                                    Query Match
Best Local Similarity
Matches 166; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 14, Application US/08306691B Patent No. 5734039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                               TELEX: No. 5734039e
INFORMATION FOR SEQ ID NO: 14:
                                                                                                                                                                                                                                                                                                                                                                                   OPERATING SYSTEM: MS-DOS
SOFTWARE: WOXDERFECT 5.1
CURRENT APPLICATION NUMBER: US/08/30
APPLICATION NUMBER: US/08/30
PILING DATE: September 15, 1
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GENERAL INFORMATION:
                                                                                                                                                                                                                                            NAME: Monaco, Daniel A.
REGISTRATION NUMBER: 30,480
REFERENCE/DOCKET NUMBER: 832:
TELECOMMUNICATION INFORMATION:
TELEPHONE: (215) 568-8383
TELEFAX: (215) 568-5549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LOCATION: 132
OTHER INFORMATION: Y=c
                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 6453 base pair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Calabretta, Bruno
APPLICANT: Skoreki, Tomasz
TITLE OF INVENTION: ANTISENSE
TITLE OF INVENTION: OLIGONUCLEOTIDES TARGETING COOPERATING ONCOGENES
                                                                                                                                                                                                                                                                                                                                    FILING DATE:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES:
                                                                                                                                               LENGTH: 6453 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                      TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CITY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STREET:
                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE:
                            1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
 CGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGAAGACCCTCTGCAAGGGGGACAGGC 1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAATACGAAAAGGGA 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGACGTGGTAGAGGTCGYGGGYAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG 172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAATACGAAAAGGGA 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pennsylvania
: U.S.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      E: Seidel, Gonda, Lavorgna & Monaco, P.C.
Two Penn Center, Suite 1800
                                                       3.8%;
nilarity 58.9%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IBM PS/2
                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Diskette,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
P
                                                                                                                                                                                                                                                                                                                                                                                                                                   US/08/306,691B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      r
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3.50
                                                         0;
                                                                                                                                                                                                                                                                                            8321-8
                                                       Score 74; DB 2; Lo
Pred. No. 1.2e-09;
0; Mismatches 110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 74.2; DB 3;
Pred. No. 2.2e-10;
2; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            inch,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                       Length 6453,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 187;
                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                           6
                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
```

```
RESULT 8
US-09-209-668-10/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                          ş
                                                                      밁
                                                                                                        δ
                                                                                                                                                  밁
                                                                                                                                                                                  S
                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                     US-09-209-668-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Monia, Brett P.
APPLICANT: Xu, Xiaoxing S.
TITLE OF INVENTION: METHODS OF MODULATING TUMOR NECROSIS FACTOR
TITLE OF INVENTION: alpha-INDUCED EXPRESSION OF CELL ADHESION METICE REFERENCE: ISPH-0336
CURRENT APPLICATION NUMBER: US/09/209,668A
CURRENT FILING DATE: 1998-12-10
NUMBER OF SEQ ID MOS: 25
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 10, Application Patent No. 6114517
                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: CDS
LOCATION: (323)..(3350)
PUBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: V00574/Genbank
DATABASE ENTRY DATE: 1991-01-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LENGTH: 64
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY: CDS
LOCATION: (2374)..(2533)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: CDS
LOCATION: (1664)..(1774)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Homo FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME/KEY: CDS
LOCATION: (2042)...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1163
                                                                                                                                                    6140
                                                                                                                                                                                                                                                                       1103 CGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAGACCCTCTGCAAGGGGGACAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6140 TGGCTCTCCCCTGCCCATCAGCACAGCTCCAGAATCCCAAGGGGTCAGCT---CCCACAT 6084
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6026 AGCGGCATGÁGGGGCTTCCGTGGAGCCCAGGGCAGTGGGCTGCTCTCTGGAGTCCCTAG 5967
                                                                                                                                                                                                                                                                                                             166;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6453
                                                                                                                                                                                                                                                                                                                         3.8%;
Similarity 58.9%;
AĠCĠGCATGĀĠĠĠĠGCTTĊCGTGGAGCĊĊAGĠĠĊAGTGGGCTGCTCTCTGGAGTCCCTAG 5967
                                                                                                    GGGCACCTCGTTCCTCACACCCTGTCCTGGTGGGGGCTGTCCGGGAAGACACCTACCCTG
                                                                                                                                                  TGGCTCTCCCCTGCCCATCAGCACAGCTCCAGAATCCCAAGGGGTCAGCT---CCCACAT
                                                                                                                                                                                        AGGCCCTCCAGGCCAGCCAGCTTCCCGGCGCCATTTGGTCAGCTTCCCCGCCAC
                                                                                                                                                                                                                                CGGCACCCAGGCCTCTGCGGGTAACCCCCAGGCATCAAGACCCCTCCAAGGGGAGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GACTCGGGGTGTGGCCTGTCCCCAGATCAGGACACACC 5925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACGGACC 1384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAGGGAGGACCTCAGGGTTCCTGGA 1342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGCACCTCGTTCCACACCCCTGTCCTGGTGGGGCTGTCCGGGAAGACACCTACCCTG 1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGCCCCTCCAGGCCCACCAGCCCGGTTCCCGCGGCCCATTTGGTCAGCTTCCCCGCCAC 1222
                                  TGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAGGGAGGACCTCAGGGTTCCTGGA 1342
                                                                          GGGGGCCTGGTCCTGCCACACACTGGCCTAGCTGGGCTGTCCCCGAGG----CCAAGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGGGCCTGGTCCTGCCACACACTGGCCTAGCTGGGCTGTCCCCGAGG----CCAAGGCCT
                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (2220)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US/09209668A
                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                             Score 74; DB 3;
Pred. No. 1.2e-09;
                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                             110,
                                                                                                                                                                                                                                                                                                                                               Length 6453
                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                             6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULES
                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                1282
                                                                                                                                                      6084
                                                                                                                                                                                              1222
                                                                                                                                                                                                                                  6141
                                                                                                                                                                                                                                                                       1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6027
                                                                            6027
                                                                                                                                                                                                                                                                                                           Ν
```

```
APPLICANT: Boriack-Sjodin, Ann
APPLICANT: Margarit, S. M.
APPLICANT: Bor-Sogi, Dafna
APPLICANT: Cole, Philip
APPLICANT: Kuriyan, John
TITLE OF INVENTION: THEREOF
FILE REFERENCE: 600-1-228N
CURRENT APPLICATION NUMBER: US/09/356,952
CURRENT APPLICATION NUMBER: US/09/356,952
CURRENT APPLICATION NUMBER: 60/093,631
EARLIER APPLICATION NUMBER: 60/093,631
EARLIER FILING DATE: 1998-07-21
NUMBER OF SEG ID NOS: 14
SOPTWARE: Patentin Ver. 2.0
SEG ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                     RESULT 10
US-09-620-312D-715
                                                                                                                                                                                                                                                                                                                                                                                             ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ঠ
                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; LENGTH: 6453
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-356-952-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 9
US-09-356-952-8/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                   Sequence 715, Application US/09620312D Patent No. 6569662
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 3.8%; Score 74; DB 3; Best Local Similarity 58.9%; Pred. No. 1.2e-09; Matches 166; Conservative 0; Mismatches 110
                                                    APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 8, Application US/09356952
Patent No. 6117663
 APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1103 CGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGAAGACCCCTCTGCAAGGGGGACAGGC
                                                                                                                                                                                               Tang,
Liu,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGGCTCTCCCCTGCCCATCAGCACAGCTCCAGAATCCCAAGGGGTCAGCT---CCCACAT 6084
                                                                                                                       Asundi, Vinod
Zhang, Jie
Ren, Feiyan
Chen, Rui-hong
                                                                                                                                                                                                                                                                                                                                                             GACTCGGGGTGTGGCCTGTCCCCAGATCAGGACACACC 5925
                                                                                                                                                                                                                                                                                                                                                                                           GATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACGGACC 1384
                                                                                                                                                                                                                                                                                                                                                                                                                                AGCGGCATGAGGGGGCTTCCGTGGAGCCCAGGGCAGTGGGCTGCTCTCTGGAGTCCCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGGCACTCAGGGTGTGCCCAGCCCCGGCCCTGGCTCAGGGAGGACCTCAGGGTTCCTGGA 1342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGGGCCTGGTCCTGCCACACACTGGCCTAGCTGGGCTGTCCCCGAGG---CCAAGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGCACCTCGTTCCTCCACACCCTGTCCTGGTGGGGCTGTCCGGGAAGACACCTACCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGCCCTCCAGGCCCAGCCAGCCCGGTTCCCCGCGGCCCATTTGGTCAGCTTCCCCGGCCAC 1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wang, Jian-Rui
Zhou, Ping
Ma, Yunqing
                                                  Zhao, Qing A.
Wehrman, Tom
Xue, Aidong J.
Yang, Yonghong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GACTCGGGGTGTGGCCTGTCCCCAGATCAGGACACACC
                                                                                                                                                                             , Y. Tom
, Chenghua
ndi, Vinod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        110; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 6453;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ę,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USE
                                                                                                                                                                                                                                                                                                                                                                                                                                5967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1162
                                                                                                                                                                           RESULT 11
US-09-774-528-336
                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                      S
                                                               Patent No. 6743619;
GENERAL INFORMATION;
APPLICANT: Tang, Y.
APPLICANT: Zhou, Pit
APPLICANT: Goodrich
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                        Sequence 336, Application US/09774528
```

APPLICANT: APPLICANT:

Tang, Y. Tom Zhou, Ping Goodrich, Ryle Liu, Chenghua Asundi, Vinod Ren, Feiyan Zhang, Jie

```
APPLICANT: Wang, Zhiwei
APPLICANT: John Tillinghast
APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. 6569662el Nucleic Aci
TITLE OF INVENTION: Polypeptides
FILE REFERENCE: 784CIP2B
CURRENT APPLICATION NUMBER: US/09/620,312D
CURRENT FILING DATE: 2000-07-19
PRIOR APPLICATION NUMBER: 09/552,317
PRIOR FILING DATE: 2000-04-25
PRIOR PILING DATE: 2000-01-21
PRIOR FILING DATE: 2000-01-21
NUMBER OF SEQ ID NOS: 1105
SOPTWARE: pt-FL-genes Version 1.0
SEQ ID NO 715
LENGTH: 1981
                                                                                                                                                                                                  ঠ
                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                 밁
                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-620-312D-715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 3.7%;
Best Local Similarity 50.5%;
Matches 233; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: CDS
LOCATION: (59)..(1585)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: DNA
                                                                               623
                                                                                                                       538
                                                                                                                                                                   563
                                                                                                                                                                                                           478
                                                                                                                                                                                                                                                     503
                                                                                                                                                                                                                                                                                               418
                                                                                                                                                                                                                                                                                                                                         446
                                                                                                                                                                                                                                                                                                                                                                                   358
                                                                                                                                                                                                                                                                                                                                                                                                                             386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       244
683 CATATGCCTGCTGAGCAAGCCTTCTGGTGCCTGGTACAGAT
                                   598 TATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCT 638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 266 GCGCTGGAGGAAGTACCCCTGGAGGTGCTGAGGCAGAGGGAGTCCAAGTGGCTGGACATG 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGGGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAA 357
                                                                                                        TATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTC
                                                                                                                                                                 GTGTCCCGGGGGGGCCACGGCCAGCAGGACCTATTCCGTGTGCTGAAGGCCTACACGCTG
                                                                                                                                                                                                         AGGGATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAG
                                                                                                                                                                                                                                                                                  GAGCACATCCAGCGCATCGACCGGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTC
                                                                                                                                                                                                                                                                                                                                                                               ATGAAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCAACAACTGGGACAAATGGATGGCCAAGAAGCACAAAAAGATTCGTCTGCGGTGCCAA 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGGGAGACTGGGAGAAAT-----ACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTAC 297
                                                                             TACCGGCCCGAGGAGGCCTACTGCCAGGCCCAGGCGCCCATTGCCGCTGTCTTGCTCATG
                                                                                                                                                                                                                                                   AAGTGGCTGGACGTGATTGAGCGTGACCTGCACCGGCAGTTCCCATTCCATGAAATGTTT
                                                                                                                                                                                                                                                                                                                                     AAGTTACAGCAGAACCCTGGAAAAGTTTGA---CGAGCTGGACATGTCCCCTGGGGACCCCC 502
                                                                                                                                                                                                                                                                                                                                                                                                                         AAGGCATCCCGCCTTCTCTGCGGGGCCCGTGCTTGGCAGTACCTGTCAGGAGGCAAGGTG 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Dunrui
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 72.6; DB 3;
Pred. No. 1.7e-09;
0; Mismatches 219;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nucleic Acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1981;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
```

537 562 477

622

682

```
Sequence 336, Application US/10120988
Patent No. 6919193
GENERAL INFORMATION:
APPLICANT: Tang, Y. Tom
APPLICANT: Goodrich, Ryle
APPLICANT: Liu, Chenghua
APPLICANT: Liu, Chenghua
APPLICANT: Mang, Dunrui
APPLICANT: Wang, Dunrui
APPLICANT: Wang, Dunrui
APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. 6919193el Nucle
TITLE OF INVENTION: Polypeptides
                                                                                                                                                                                                 US-10-120-988-336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; NAME/KEY: CDS
; LOCATION: (136)..(1476)
US-09-774-528-336
                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                 В
                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Zhao, Qing A.
APPLICANT: Yang, Yonghong
APPLICANT: Xue, Aidong J.
APPLICANT: Wehrman, Tom
APPLICANT: Wehrman, Tom
APPLICANT: Wang, Jian-Rui
APPLICANT: Wang, Dunrui
APPLICANT: Drmanac, Radoje T.
TITLE OF INVENTION: No. 6743619el Nu
TITLE OF INVENTION: Polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/09/774,528
CURRENT FILING DATE: 2001-01-30
NUMBER OF SEQ ID NOS: 441
SOFTWARE: pt FL genes Version 2.0
SEQ ID NO 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Homo |
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 442
                                                                                                                                                                                                                                                                          742
                                                                                                                                                                                                                                                                                                                                              682
                                                                                                                                                                                                                                                                                                                                                                                577
                                                                                                                                                                                                                                                                                                                                                                                                                  622
                                                                                                                                                                                                                                                                                                                                                                                                                                                    517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             al Similarity
209; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1823
                                                                                                                                                                                                                                                                          ΑŢ
                                                                                                                                                                                                                                                                                                           Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGAAGGGCAAGAGGTCATCTGAGCACATCCAGCGCATCGACCGGGACGTAAGCGGGACA 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCCCTGTTGTGTGGGGCCCATGTGTGCCAGAAGAACAGCCCTGGCACCTATCAGGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTCCTCCTGAACATTGAGGAAATGAAGTTGAAAAACCCCGGAAGATACCAGATCATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGAAGGTAAAGATGCAGTGCCGGAAAGGCATCCCGTCTGCCCCTGCGCGCCCCGATGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGGGAGATGAAGTGGGAGAAGAACCTCGCACTGGGAGAAAACCATGTCCCGGCGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CGAAAGAGCAAGTGGGTGGATATGCTGGGAAGACTGGGAGAAATACAAAAGCAGCAG---A
                                                                                                                                                                                                                                                                                                                                              GTGGCTGCTGCTCATGCACCTGCCCCCAGAGGAGGCCTTCTGGTGCCTGGTGCAG
                                                                                                                                                                                                                                                                                                                                                                              ATCGCCGCCTTGTTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATCCTCCTGGCATATGAGGAGTATAACCCCGGAGGTGGGCTACTGCAGGGACCTGAGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCAGAGGCCCCTGGAGACCCACAGTGGATGGAGACCATTGGCAGGGACCTGCACCGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGCTCATAGATCGAGCGTACAAGGGAATGCCCATGAACATCCGGGGCCCGATGTGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCCCTCTGCACGAGATGTTTGTGTCGCCTCAGGGCCACGGGCAGCAGGGGCTCCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTAAGGAAGCATATATTCTTCAGGGATCGATACGGAACCAAGCAGCGGGAACTACTCCAC
                                                                                                                                                                                                                                                                                                           638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            3.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 70; DB 3;
Pred. No. 8.7e-09;
0; Mismatches 210
                       Nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nucleic
                       Acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Acide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 1823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           u
•
                                                                                                                                                                                                                                                                                                                                              741
                                                                                                                                                                                                                                                                                                                                                                                636
                                                                                                                                                                                                                                                                                                                                                                                                                                                    576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         381
                                                                                                                                                                                                                                                                                                                                                                                                                    681
```

```
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (136)..(1476)
US-10-120-988-336
                                                                                                                                                                                                                                                                             RESULT 13
US-08-232-463-14/c
; Sequence 14, Application
; Patent No. 5670367
                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: pt_FL_genes Version 2.0 SEQ ID NO 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 209; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: 802CON
CURRENT APPLICATION NUMBER: US/10/120,988
CURRENT FILING DATE: 2002-04-11
PRIOR APPLICATION NUMBER: 09/774,528
PRIOR FILING DATE: 2001-01-30
NUMBER OF SEQ ID NOS: 441
                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 18
COMPUTER READABLE FORM:
MEDIUM TYPB: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                         APPLICANT: DORNER, F.
APPLICANT: SCHEIFLINGER, F.
APPLICANT: FALKNER, F. G.
TITLE OF INVENTION: RECOMBINANT FOWLPOX VIRUS
                                                                                                                                        ADDRESSEE: Foley & I
                                                 STREET: 1800 Diago
CITY: Alexandria
STATE: VA
COUNTRY: USA
COUNTRY: USA
ZIP: 22313-0299
                                                                                                                                                                            NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                          637
                                                                                                                                                                                                                                                                                                                                                                                                                                                             682
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                622
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            442
                                                                                                                                                                                                                                                                                                                                                                                          742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            220 CGAAAGAGCAAGTGGGTGGATATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAG---A
                                                                                                                                                                                                                                                                                                                                                                                          ΑŢ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCCTCCTGGCATATGAGGAGTATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCCTCCTGAACATTGAGGAAATGAAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGAAGGTAAAGATGCAGTGCCGAAAAGGCATCCCGTCTGCCCTGCGCGCCCGATGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGGGAGATGAAGTGGGTGGAGATGACCTCGCACTGGGAGAAAACCATGTCCCGGCGGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                          G
                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGGCTGCTGCTCATGCACCTGCCCCCAGAGGAGGCCTTCTGGTGCCTGGTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCGCCGCCTTGTTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGCTCAAGGCCTACACCCTGTATCGACCGGAGCAGGGCTACTGCCAGGGCCCAGGGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCAGAGGCCCCTGGAGACCCACAGTGGATGGAGACCATTGGCAGGGACCTGCACCGTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAGAAGGGCAAGAGGTCATCTGAGCACATCCAGCGCATCGACCGGGACGTAAGCGGGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCCCTGTTGTGTGGGGCCCATGTGTGCCAGAAGAACAGCCCTGGCACCTATCAGGAGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGCTCATAGATCGAGCGTACAAGGGAATGCCCATGAACATCCGGGGCCCGATGTGGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTAAGGAAGCATATATTCTTCAGGGATCGATACGGAACCAAGCAGCGGGAACTACTCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTCCCTCTGCACGAGATGTTTGTGTCGCCTCAGGGCCACGGGCAGCAGGGGCTCCTGCAG
                                                                                                                      E: Foley & Lardner
1800 Diagonal Road,
                                                                                                                                                                                                                                                                                                                                                                                                                          638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3.6%;
                                                                                                                                                                                                                                                                                                    US/08232463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 70; DB 3;
Pred. No. 8.7e-09;
                                                                                                                         Suite 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       210; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 1823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ų.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     621
```

OPERATING SYSTEM:

PC-DOS/MS-DOS

Version

#1 . 25

```
RESULT 14
US-09-270-767-9899/c
                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                        ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ફ
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; IMMEDIATE SOURCE:
; CLONE: pTZgpt-F18
US-08-232-463-14
Sequence 9899, Application US/09270767
PATENT NO. 6703491
GENERAL INFORMATION:
APPLICANT: Homburger et al.
TITLE OF INVENTION: Nucleic acids and proteins of Drosophila melanogaster
FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 3.5%; Score 68.4; DB 2; Length 7218; Best Local Similarity 4.5%; Pred. No. 4.4e-08; Matches 18; Conservative 231; Mismatches 147; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PILING DATE: 26-AUG-1991
ATTORNAY AGENT INFORMATION:
NAME: BENT, Stephen A.
REGISTRATION NUMBER: 29,768
REFRENCE/DOCKET NUMBER: 3047
TELECOMMUNICATION INFORMATION:
TELEPHONE: (703)836-9300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: Patentin Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: (703) 683-4109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: FILING DATE: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH:
                                                                                                                                                                                                                                                                                                                                                                            1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98 ACAAGGGGCCTAAGCCTTTTCGAAGCTACAACAACGTCGATCATTTGGGGATTGTAC 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                38 AAGAGCGAGAGGACATCATTATGAAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nucleic
                                                                                                                                                                                                                                                                                                    AGAAGGGCAAGAGGTCATCTGAGCACATCCAGCGCA 433
                                                                                                                                                                                                                                                                                                                                       TCCTCCTGAACATTGAGGAAATGAAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGG 397
                                                                                                                                                                                                                                                                                                                                                                            AGCTCATAGATCGAGCGTACAAGGGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAG 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCCGAAAGAGCAAGTGGGTGGATATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAA 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATGAGACGGAGCTGCCTCCTCACTGCGCGGGAGGCGAAGCAAATTCGGCGGGAGATCA 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         899149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7218 base pairs
ucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US/08/232,463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EP 91 114 300.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US/07/935,313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           30472/114 IMMU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                      1097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
```

```
RESULT 15
US-08-363-300-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                 US-08-363-300-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; ORGANISM: Drosophila melanogaster US-09-270-767-9899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1, Application US/08363300 Patent No. 5700927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 9899
LENGTH: 806
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                              TELEFAX: (617) 542-8906
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30B
CURRENT APPLICATION DATA:
                                                                                              MOLECULE TYPE:
FEATURE:
                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION: TELEPHONE: (617) 542-5070
                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                            NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 04
                                                                                                                                             STRANDEDNESS:
                                                                   LOCATION:
                                                                                  NAME/KEY:
                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CITY: Boston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                               ENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       668 ATCCAGCGGGACATCCATCGCACTTTCCCGGCGCACAAATGCTTCAAAGAAATTGGCGGT 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    433 ATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGGGATCGATACGGA 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       608 TCTGGCCAAGATGCACTTTTTAAGGTGTCCAAAGCGTATGCCGTTCATGACAGCGAGGTT 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      02110-2804
                                                                                                                                                                   nucl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCAC 657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTATCTTCCTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCAAGCAGCGGAACTACTCCACATCCTCCTGGCATATGAGGAGTATAACCCGGAGGTG 552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GATGCGTTCTGTGTTCTGGTAGCGCTTATGTACGACTATGGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGATATTGTCAGGGTCTAAGTTTCATAGCAGCTAGTCTGCTCCTTCATATGCCTGAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ¥
                                                                                                                                                                              4039 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       225 Franklin Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                       linear
E: DNA (genomic)
                                                                                                                                               leic acid
SS: double
                                                                 403..3829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fish & Richardson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Leonard and Richardson, 
N: Tbc1 Gene and Uses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3.2%;
55.1%;
 2.7%;
49.6%;
                                                                                                                                                                                                                                                                                                                                                                                    us/08/363,300
                                                                                                                                                                                                                                                                                   04590/009001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>.</u>
 Score 53.6; DB 2;
Pred. No. 0.00039;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 63.4; DB 3;
Pred. No. 3.9e-07;
0; Mismatches 101;
                 Length 4039;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 806;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

```
Search completed: April 5, 2006, 14:01:08 Job time : 365 secs
                                                                                     δ
                                                                                                                B 8 B 8
                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                             ફ
                                                                                                                                                                                                                                                                                                                                                                Matches 137; Conservative
                                                                                                                                                                                                                                                                                                   2992 GAGGAAGAGGCGTTCAAGATGCTCAAGTTCCTGATG 3027
                                                                                                                                                                                                                                         2812 CACGCCATTCTCATCGACCTCGGGCGAACCTTTCCAACACATCCATACTTCTCTGCCCAG 2871
                                                                                                                      2872 CTTGGAGCAGGTCAGCTGTCACTTTACAACATTCTGAAGGCCTACTCGCTTCTGGACCAG 2931
                                                                               607 GAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTG 642
                                                                                                                                       547 GAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCCTTGTTCCTCCTCCTCTATCTTCCT 606
                                                                                                                                                                                                  487 TACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTATAACCCG 546
                                                                                                                                                                                                                                                             427 CAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGGGATCGA 486
                                                                                                                                                                                                                                                                                                                                                            0; Mismatches 139; Indels
                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                              Gaps
```

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Minimum DB
Maximum DB
  იი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OM nucleic - nucleic search, using sw model
                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        85
                                                                                                                                                                                                                                                                                                         Pred. No. is the number of results predicted by chance to have score greater than or equal to the score of the result being parand is derived by analysis of the total score distribution.
                                                                                                                                                                                              1585.
859.
841.
                                                                                                                                           814.6
797.6
797.4
793.6
751.6
                                  741.2
732.6
730.2
730.2
7318.2
718.2
713.6
707.4
701.8
700.8
                                                                                                                                                                                                                                                      Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Beq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           length: 0
length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      April
                                                                                                                                                                                                                                                      Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-071-838-1
1964
                                                                                      Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41078325 seqs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IDENTITY_NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     atggacgtggtagaggtcgc.....aaatgtttcctgttgaaatg 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Copyright
                                                                                                                                                                                                                                                                                                                                                    gb_est4:*
gb_est5:*
gb_est7:*
gb_est7:*
gb_gss1:*
gb_gss2:*
gb_gss3:**
                                                                                                                                                                                                                                                                                                                                                                                                                                  gb_est1:*
gb_est3:*
gb_est3:*
gb_htc:*
                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ģ
                                 915
909
954
919
919
868
818
810
930
1013
839
1141
709
1079
732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2006, 13:32:54 ; Search time 5318 Seconds
(without alignments)
17279.020 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                                                                                                                                                                      B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23393541228 residues
 BQ891586
AQ788033
BU688833
                                          BMS53146
BI828272
BI088323
BM563571
CA748642
                                                                                                                    BI753688
BU526609
BI522600
CD653466
BU542901
BI597531
                                                                                                                                                                                                                                                      IJ
                                                                                                  BI601698
                                                                                                                                                                                                                                  HSM80182
                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            82156650
                    BM563571
CA748642
AL042933
BQ891586
                                                                                                                                                    BI522600
CD653466
                                                                                                                                                                                                                    AL136860 Homo
BC047739 Homo
                                                                                                                                                                                                                                                    Description
                                                                                      BM553146
                                                                                                 BI601698
                                                                                                                                 BI597531
                                                                                                                                            BU542901
                                                                                                                                                                           BU526609
                                                                                                                                                                                                          BX346181
                                                                                                                              Homo sapi
Homo sapi
Homo sapi
BX346181
AGENCOURT
603175612
AGENCOURT
AGENCOURT
AGENCOURT
AGENCOURT
DKFZp434K
AGENCOURT
HS 3100 A
UI-CF-EC1
                                           AGENCOURT
UI-H-FT1-
                                                                 603078163
602852793
                                                                                              AGENCOURT
AGENCOURT
603249940
                                                                                                                                                                                                                                                                                                                      printed,
                                                                                       AGENCOURT
                                                                                                                                                                                                                                                                                                                                                                                               ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULA 1
HSW01828
LCCUS
DEFINITION
                                                                                                                                                                                                                                                                 COMMENT
                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             00000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ი
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            O
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G
                                                                                                                                                                                                                                                                                                 CONSRTM
TITLE
                                                                                                                                                                                                                                                                                     JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           36 39 39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene
 SdO
                                                                                                                                          source
                                                                                                                                       Neuherberg, GERMANY
Clone from S. Wiemann, Molecular Genome Analysis, German Cancer Research Center (DKFZ); Email s.wiemann@dkfz-heidelberg.de; sequenced by DKFZ (German Cancer Research Center, Heidelberg/Germany) within the cDNA sequencing consortium of the German Genome Project. This clone (DKFZp434P2235) is available at the RZPD Deutsches Ressourcenzentrum fuer Genomforschung GmbH in Berlin, Germany. Please contact RZPD for ordering:
http://www.rzpd.de/cgi-bin/products/cl.cgi?CloneID=DKFZp434P2235
http://www.rzpd.de/cgi-bin/products/cl.cgi?CloneID=DKFZp434P2235
Further information about the clone and the sequencing project is available at http://mips.gsf.de/projects/cdna/.

S Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  628.4
627.4
625.6
625.4
625.4
620.2
600.2
600.2
600.3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      663.8
651.4
645.8
640.4
635.2
632.4
                                                                                                                                                                                                                                                                                                                                                                                                                               AL136860
AL136860.1
                                                                                                                                                                                                                                                                                    Submitted (22-SEP-2004) MIPS, Ingolstaedter Landstr.1, D-85764
                                                                                                                                                                                                                                                                                                                             1 (bases 1 to 2072)
Poustka,A., Albert,R., Moosmayer,P., Schupp,I., Wellenreuther,R.,
Mowes,H.W., Weil,B., Amid,C., Osanger,A., Fobo,G., Han,M. and
                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens mRNA; cDNA
                                                                                                                                                                                                                                                                                               Direct Submission
                                                                                                                                                                                                                                                                                                           The German cDNA Consortium
                                                                                                                                                                                                                                                                                                                                                               Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HSM801828
                                                                                                                                                                                                                                                                                                                      ∛iemann,S.
                                                                                                                                                                                                                                                                                                                                                                                                  sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /tissue_type="testis"
/clone_lib="434 (synonym: htes3).
DH10B; sites Not! + Sal!"
/dev_stage="adult"
/note="TBC1 domain family, member
/gene="DKFZp434P2235"
99. .1748
                                                                                              /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="RZFD:DKFZp434P2235"
/db_xref="taxon:9606"
                                                                                     clone="DKFZp434P2235"
                                                                                                                                                                                                                                                                                                                                                                                                                               GI:12053224
                     .2072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BM914524
BM842553
BM843014
AI867050
BM762465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BI829764
CB241156
BI520522
BE676151
CN262008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BI827136
CA487310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BU607318
BQ007813
                                                                                                                                                                                                                                                                                                                                                                                                                                                     2072 bp mRNA linear HTC 22-SEP-2004 DKFZp434P2235 (from clone DKFZp434P2235).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ALIGNMENTS
                                                               htes3). Vector pSport1; host
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BI829764
CB241156
BI520522
BE676151
CN262008
BM914524
BM842553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DR006725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DN999748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BM762465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A1867050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BM843014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               603077337
AGENCOURT
603079835
UI-CF-FN0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     603075809
TC104423
TC105000
RPCI-11-2
tq77f06.x
UI-CF-FN0
UI-H-EIO-
hb90e11.x
DKFZP468D
603080926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGENCOURT
K-EST0119
K-EST0120
tz45e05.x
K-EST0043
UI-H-FG1-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7f24a04.x
170005977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      603071531
```

```
밁
            S
                              밁
                                                Ś
                                                                       В
                                                                                   ð
                                                                                                     유 성
                                                                                                                                        유성
                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                            음 송 음
                                                                                                                                                                                                                                                    유성
                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 1954; Conserva
                721
                                                    661
                                                                                                                                                                                                                                      361
819
                                   759
                                                                       699
                                                                                         601
                                                                                                           639
                                                                                                                           541
                                                                                                                                              579
                                                                                                                                                              481
                                                                                                                                                                                                                      459
                                                                                                                                                                                                                                                         399
                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                           339
                                                                                                                                                                                                                                                                                                                                                  181
                                                                                                                                                                                  519
                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                               279
                                                                                                                                                                                                                                                                                                                                                                                                        159
                                                                                                                                                                                                                                                                                                                                                                    219
                                                                                                                                                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                          99
                                                                                                                                                                                                                                                                                                                                                                                                                                                            μ
CTGCAGGGATTTCACAGCCCAAATGGCGGGGCCGTCCAGGGGGCTCCAAGACCAACAGGAG
                                                                       AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                             GATCGATACGGAACCAAGCAGCGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 540
                                                                                                                                                                                  AAGTTGAAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                         GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                           ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                       ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                               AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                      AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACGACATTATG
                                    CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                       AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGCAAGAAGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99.2%;
ilarity 99.5%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="DKFZp434P2235"
/codon_start=1
/product="hypothetical protein"
/product="hypothetical protein"
/product="hypothetical protein"
/protein_ide"CAB66794.1"
/db_xref="GI:12053225"
/db_xref="UniProt/Swiss-Prot:QBIZP1"
/db_xref="MDVVEVAGSWWAQSREDIIMKYEKGHRAGLDEDKGDKGPKPFRSYNN
/translation="MDVVEVAGSWWAQSREDIIMKYEKGHRAGLDEDKGGKGSEHLIRAYKGM
PMNIRQPM%SVLLNTEEMKLKNPGRYQIMKEKGKSSEHLQRIDDLVSGTLRKHIFFR
DRYGTKQRELLHIILLAYEEYNPEVGYCRDLSHIAALFLLYLPEEDAFMALVQLLASER
HSLQGFHSPNGGTVQGLQDQGEHVVATSQPKTMGHQDKKDLCGQCSPLGCLIRILIDG
ISLGLTLRLMDVYLVEGEQALMPITRIAFKVQQKRLTKTSRCGPWARFCNRFVDTWAR
DEDTVLKHLRASMKKLTRKKGDLPPAKFSGGSSASRVEYDASRGKTLCKGDRQAPG
PPARFPRPIWSASPPARPRSTPCPGGAVREDTYVEYTOGVPSPALAQGGPGSWRFL
QWNSMPRLPTDLDVEGPWFRHYDFRQSCWVRAISQEDQLAPCWQAEHPAERVRSAFAA
PSTDSDQGTPFRARDEQQCAPTSGPCLCGLHLESSQPPPGF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1948; DB
Pred. No. 0;
); Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                         120
878
                                     818
                                                                                                            698
                                                                                                                             600
                                                                                                                                                                                  578
                                                                                                                                                                                                    480
                                                                                                                                                                                                                       518
                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                          458
                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                338
                                                                                                                                                                                                                                                                                                                                                                    278
                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                        218
                                                                                                                                                                                                                                                                                                                                                                                                                                           158
                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
         유 성
                                      밁
                                                         5
                                                                          음 성
                                                                                                              8 8 8 8
                                                                                                                                                                                      음 성
                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                          중 음 중
                                                                                                                                                                                                                                                                                               음 성
                                                                                                                                                                                                                                                                                                                                 음 성
                                                                                                                                                                                                                                                                                                                                                                       B 8 B 8
                                                                                                                                                                                                                                                                                                                                                                                                                                              음 성 음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5 & 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                               1441
                                                                                                                                                                                                                                                                  1479
                                                                                                                                                        1659
                                                                                                                                                                                                            1501
                                                                                                                                                                                                                                                                                    1381
                                                                                                                                                                                                                                                                                                      1419
                                                                                                                                                                                                                                                                                                                        1321
                                                                                                                                                                                                                                                                                                                                          1359
                                                                                                                                                                                                                                                                                                                                                                                                                1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       781
                                            GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                 GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                          CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCTTCAGA
                                                                                                                                                                                                                                                                                                     GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                        GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCCAGCCCACCAC
                                                                                                                                                       CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                                                                                                                             GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                   ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                        ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                               CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCCTGCTGGCAGGCTGAACACCCCTGCGGAG
                                                                                                                                                                          1620
                                                                                                                                                                                                              1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1020
                                                               1800
                                                                                                                      1778
                                                                                                                                       1680
                                                                                                                                                                                            1658
                                                                                                                                                                                                                                                1500
                                                                                                                                                                                                                                                                   1538
                                                                                                                                                                                                                                                                                                                        1380
                                                                                                                                                                                                                                                                                                                                                            1320
                                                                                                                                                                                                                                                                                                                                                                                                                                   1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1118
            1958
                            1860
                                                                                 1838
                                                                                                                                                         1718
                                                                                                                                                                                                                               1598
                                                                                                                                                                                                                                                                                     1440
                                                                                                                                                                                                                                                                                                       1478
                                                                                                                                                                                                                                                                                                                                          1418
                                                                                                                                                                                                                                                                                                                                                                              1358
                                                                                                                                                                                                                                                                                                                                                                                               1260
                                                                                                                                                                                                                                                                                                                                                                                                                1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       938
```

vative 0 GAGCTGCCTCC	/lab hote="DHIOB" - 1.15 /lab hote="DHIOB" - 1.15 /note="Vector: pCMV-SPORT6" ORIGIN ORIGIN Query Match 80.7%; Score 1585.8; DB 4; Length 2497; Best Local Similarity 89.8%; Pred. No. 0:	/mol_type="mRNA" /db_xref="taxon:9606" /clone="IMAGE:5743752" /tlone="type="Brin, low" /clone="type="Brin, low" /clone="type="t	PASSED THE FOLLOWING BELECTION CTITETIA: MAICHED MKNA 91: 14149984 This clone has the following problem: retained intron. FEATURES Location/Qualifiers Source 12497 //Organisms"Homo samiens"	Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LIML at: http://image.llnl.gov Series: IRAK Plate: 98 Row: d Column: 17 This clone was selected for full length sequencing because it	Dickson, M., Schmutz, J., Grimwood, J., Rodriquez, A., and Myers, R. M.	DNA Sequencing by: Sequencing Group at the Stanford Human Genome Center, Stanford University School of Medicine, Stanford, CA 94305 Web site: http://www-shgc.stanford.edu Contact: (Dickson, Mark) mcd@paxil.stanford.edu		Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590, USA REMARK NIH-MGC Project URL: http://mgc.nci.nih.gov			VERSION BC047739.1 GI:29126829 KEYWORDS HTC. SOURCE Homo sapiens (human) ORGANISM Homo sapiens	LOCUS BC047739 2497 bp mRNA linear HTC 20-MAR-2003 DEFINITION Homo sapiens, Similar to Rab GTPase-activating protein PRC17, clone IMAGE:5743752, mRNA. BC047730 RC047730		Qy 1921 ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG 1964	Qy 1861 CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGG 1920
\$ \$ \$ \$ \$ \$	D & &	} B &	P Q	유 왕	B &	B &	B 8	B 8	B &	B &	B 84	B &	QQ db	מט	P B
GARACTARCAAGARAAGCAGGGGACCTGCCACCCCAGCCAAACCCGAGCAAGGGTCGTCCCCCACCAAACCAAAACCAAGAAAACCAGAGGAAGGTCGTCCCCACCCA			929 928 1308 CTTCCTCACACTGTCCTCATGATCCTCTGTTCTGGCCCAGAGGGAGG	929 928 1248 ACGTGTGCCCAGCGGGGCCTGGGGAGCCCTGGGGTCAGACCCCGACTGGCCCCGAGGGCAG 1307	877 GGCGAACAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAGA 928 	817 TIGATIGACGGATCTCTCCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAA 876	757 CATCAGGACAAGAAAGATCTATGTGGGCAGTGTTCCCCGTTAGGCTGCCTCATCCGGATA 816	697 CAGGGGCTCCAAGACCAACACGGAGCATGTGGTAGCCACGTCACAACCCAAGACCATGGGG 756	637 CTGCTGGCCAGTGAGAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTC 696	577 ATCGCCGCCTTGTTCCTCCTCTATCTTCCTGAGGAATGCATTCTGGGCACTGGTGCAG 636	517 ATCCTCCTGGCATATGAGGAGTATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCAC 576	457 TTAAGGAAGCATATATTCTTCAGGGATCGATACGGAACCAAGCAGCGGGAACTACTCCAC 516	397 GAGAAGGGCAAGAGGTCATCTGAGCACATCCAGCGCATCGACCGGGACGTAAGCGGGACA 456 	648 GTCCTCCTGAACATTGAGGAAATGAAGATTGAAAAACCCCGGGAAGATACCAGATCATGAAG 707	

```
RESULT 3
BX346181/c
LOCUS
 REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                   VERSION
KEYWORDS
                                                                                                         SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                       닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           음 성
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1788
                                                                                                                                                                                                                                                                                               1944
                                                                                                                                                                                                                                                                                                                         2388
                                                                                                                                                                                                                                                                                                                                                   1884
                                                                                                                                                                                                                                                                                                                                                                            2328
                                                                                                                                                                                                                                                                                                                                                                                                                                 2268
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2028
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1728
                                                                                                                                                                                                                                                                                                                                                                                                        1824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1668
                                                                                                                                 BX346181 Homo sapiens T CI
Homo sapiens CDNA clone CV
BX346181 GI:30369074
EST.
1 (bases 1 to 986)
Li,W.B., Gruber,C., Jessee,J. and Polsyes,D. Full-length CDNA libraries and normalization Unpublished (2001)
Contact: Genoscope
                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                      Homo sapiens (human)
Homo sapiens
                                                                  Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                       CCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGGATAACTACCTTCACGTTTTGAAA 1943
                                                                                                                                                                                                                                                                                                                                                                                          CATGCCCAGCCCCTCCCAGCACCCCCAGCCCACCGACCATCGTTCTGAATTCTGACGACA 1883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAGCGGGTGAGATCGGCTTTCGCTGC 1523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTTCCGCCATTATGATTTCAGACAGAGCTGCTGGGTCCGTGCCATATCCCCAGGAGGACCA 1463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACGGACCTGGACGTAGAGGGCCCTTG 1403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGCACTCAGGGTGTGCCCCAGCCCGGCCCTGGCTCAGGGAGGACCTCAGGGTTCCTGGAG 1343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCTGTCCGGGAAGACACCTACCCTGT 1787
                                                                                                                                                                                                                                                                               TAAATGTTTCCTGTTGAAATG 1964
                                                                                                                                                                                                                                                                                                                                                                              CATGCCCAGCCCTCCCAGCACCCCCAGCCCCACGACCATCGTTCTGAATTCTGACGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                 AGTIGCAGCTCGAGAGAGTTCAGAGATGGAACACACCAGACCCCAGATCACAAAGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                               AGTGCAGCTCGAGAGAGATTCAGAGATGGAACACACCAGACCCCAGATCACAAAGCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGCAAGCTTCGCATCCTCGTTTTATTTTTGGTTAAACTTATGAAAATGTATTAAGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAAACTTTATGAAAATGTATTAAGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGATAATTTCCCTAGGCTTAACAACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGATAATTTCCCTAGGCTTAACAACCC 1703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTGGAAAGTTCTCAGTTCCCCTCCAGG 1643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGAGCTAGGGACCGAACAGCCGTGTGC 1583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAGCGGGTGAGATCGGCTTTCGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTTCCGCCATTATGATTTCAGACAGAGCTGCTGGGCCCGTGCCATATACCAGGAGGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTCCTGCAGTGGAACTCCATGCCCCCCCCCCCAACGGACCTGGACGTAGAGGGCCCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAGGGAGGACCTCAGGGTTCCTGGAG 1847
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGGCTGTCCGGGAAGACACCTACCCTGT 1283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCCCCTCCAGGCCCAGCCAGCCCGGTTCCCGCGGCCCATTTGGTCAGCTTCCCTGCCACG 1727
                                                                                                                                                                                                                                                                                                                          CCGTGAGCCTGCCTTTGTACTTCAAACTCATGGAAGGATAACCACCTTCATGTTTTGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTGGAAAGTTCTCAGTTCCCTCCAGG
                                                                                                                                                                         986 bp mRNA linear EST 08-APR-2004 CELLS (JURKAT CELL LINE) COT 10-NORMALIZED CSODJ010YK20 3-PRIME, mRNA sequence.
                                                                                                                                                                                                                                                                       2468
                                                                                                                                                                                                                                                                                                                                                                                                                                 2327
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2027
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1907
               S
                                        밁
                                                             δ
                                                                                            밁
                                                                                                               ક
                                                                                                                                       밁
                                                                                                                                                                   ક
                                                                                                                                                                                                   밁
                                                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                        ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Ma
Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Match
                1571
                                                                                                                       1451
                                                                                                                                                                             1391
                                                                                                                                                                                                                               1331
                                                                                                                                                                                                                                                                                    1271
                                                                                                                                                                                                                                                                                                                                       1211
                                                                                                                                                                                                                                                                                                                                                                                                                                               1091
                                           444
                                                                                              504
                                                                                                                                                 564
                                                                                                                                                                                                       624
                                                                                                                                                                                                                                                         684
                                                                                                                                                                                                                                                                                                              744
                                                                                                                                                                                                                                                                                                                                                                 804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 925;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8800.r
                                                        CGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGAGCTAGGGACG
                AACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTGGAAAGTTCTC
                                           CGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGAGCTAGGGACG
```

```
Genoscope - Centre National de Sequencage 2 rue Gaston Cremieux, CP 5706 - 9157 EVRY cedex - FRANCE 2 rue Gaston Cremieux, CP 5706 - 9157 EVRY cedex - FRANCE Email: segraf@genoscope.cns.fr Web: www.genoscope.cns.fr lst strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies, a division of Invitrogen. This sequence belongs to sequence cluster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         For more information about this cluster, see http://www.genoscope.cns.fr/cdna?s=CSOAJO10BF10NP1&c=8800.r.
/note="18t strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoRV sites of the pCMVSPORT 6 vector. Library was normalized."
                                                                                                                                                                                  /organism="Homo sapiens"

/mol type="mcRu."
/mol type="mcRu."
/db_xref="rtaxon.9606"
/clone="CSODJ010YK20"
/cell_type="T CELLS (JURKAT CELL LINE) COT 10-NORMALIZED"
/cell_line="JURKAT"
/clone_lib="Homo sapiens T CELLS (JURKAT CELL LINE) COT 10-NORMALIZED"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
```

GGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCAGCCAAACCCG TTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTCAAGCATCTTA 1030 KTTTTSAACCGGTTCKTTATACCTGGCCMAGGGATGAGRACACTGT-CTMAAGCATCTTA Conservative 43.8%; 95.4%; 9; Mismatches Score 859.8; DB 5; Pred. No. 4.9e-219; 29; Length Indels 986; 7; 1090 921 v

AGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAGACCCTTCTGCA CCCAGGAGGACCAGCTGGCCCCTGCTGGCAGCTGAACACCCTGCGGAGCGGGTGAGAT TAGAGGGCCCTTGGTTCCGCCATTATGATTTCAGACAGAGCTGCTGGGTCCGTGCCATAT 1450 AGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGGCCTCCCAACGGACCTGGACG ACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAGGGAGGACCTC CTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCCTGTCCTGGTGGGGCTGTCCGGGAAG AGGGGACAGGCCCTCCAGGCCCACCAGCCGGTTCCCGCGCGCCCATTTGGTCAG AGGGGGACAGGCACCCTCCAGGCCCACCAGCCCGGTTCCCGCGGCCCATTTGGTCAG 1210 CCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAGCGGGTGAGAT TAGAGGGCCCTTGGTTCCGCCATTATGATTTCAGACAGAGCTGCTGGGTCCGTGCCATAT ACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAGGGAGGACCTC CTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGGGGCTGTCCGGGAAG GGCC--TCTAKAARAAACTAACAAGAAAGCAGGGGACC--KCAACCCCCASCCAAACCCG AGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACGGACCTGGACG ≡ 1390 1270 1150 1510 625 1330 745 805 565 685 865 445 505

1570

```
RESULT 4
BQ923700
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
 ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                          COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KEYWORDS
                                                                                                                                                                                                                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1631
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1691
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   915 bp 915 nm AGENCOURT_8798484 NIH_MGC_101 H. 5', mRNA sequence. BQ923700 BQ923700.1 GI:22338731 EST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25
                                                                                                                                                                                                                                                      cDNA Library Preparation: Rubin Laboratory CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information catefound through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov plate: LLCM2607 row: 1 column: 07 High quality sequence stop: 639.
                                                                                                                                                                                                                                                                                                                                                                         Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                    1 (bases 1 to 915)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTCACGTTTT 1939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATTCTGACGACACCGTGAGCCTGCCCTTTGTACTTTAAACTC-ATGGAAGGATAACTACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCAGCCCCACGACCATCGTTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCACCACCACCACCACCATCGTTCTG 1870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTATTAAGAAAGAGTGCAGCTCGAGAGAGAGTTCAGAGATGGAACACACCAGACCCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGTATTAAGAAAGAGTGCAGCTCGAGAGAGATTCAGAGATGGAACACACCCGAGACCCCAGA 1810
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTTGGTTAAACTTATGAAAA 1750
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGATAATTTCCCTA 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGATAATTTCCCTA 1690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATTCTGACGACACCGTGAGCCTGCCTTTGTACTTCAAACTCNATGGAAGGATAACCNNC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AACAGCCGTGTGCCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTGGAAAGTTCTC 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens (human)
sapiens
          /db_xref="taxon:9606"
/clone="IMAGE:6425622"
                                                                                                                                                                                                  organism="Homo sapiens"
|mol_type="mRNA"
                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            bp
1 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                   Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear EST 20-AUG-2002 CDNA clone IMAGE:6425622
                                                                                                                                                                                                                                                                                                                   can
                                                                                                                                                                                                                                                                                                                   þe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  206
RESULT 5
BI753688
LOCUS
                                                                                                                                                     δ
                                                                                                                                                                                    멼
                                                                                                                                                                                                           5
                                                                                                                                                                                                                                           닭
                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                             뮍
                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                    맑
                                                                                                                                                                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                         S
                                                                                                                           밁
                                                                                                                                                                                                                                                                                                    吊
                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ঠ
                                                                       멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 890; Conserv
                                                                                                  1306
                                                                                                                                                        1248
                                                                                                                                                                                                               1189
                                                                                                                                                                                                                                                                         1129
                                                                                                                                                                                                                                                                                                                                 1069
                                                                                                                                                                                                                                                                                                                                                                                         1009
                                                                                                                              840
                                                                                                                                                                                                                                           721
                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                      541
                                                                       900
                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                               949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Н
 BI753688
                                                                                                  CCGG 1309
                                                                                                                                                TCCTGGTGGGGCTGTCC-GGGAAGACACCTA-CCCTGTGGGCACTCAGGGTGTGCCCAGC 1305
                                                                                                                                                                                                                                           CGTGGCGGGAAGACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCA-GCCCACCAGCCCGG
                                                                                                                                                                                                                                                                                                                                                             GACACTGTGCTCAAGCATCTTANGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCCTCACGAAGACGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCTCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACCAACAGGAGCATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCCATCAGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      HITTTTTCAGGGATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCA 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATATTCTTCAGGGATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCA
                                                                                                                                                                                                      TTCCCGCGGCCCATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTG-
                                                                                                                                                                                                                                                                        CGTGGCGGGAAGACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGG
                                                                                                                                                                                                                                                                                                    CTGCAACCCCCAGCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCA
                                                                                                                                                                                                                                                                                                                               CTGCCACCCCAGCCAAACCCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCA 1126
                                                                                                                                                                                                                                                                                                                                                                                        GACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                               AGGTGTGGCCCGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACCAACAGGAGCATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTCCTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCCTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TATGAGGAGTATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATGAGGAGTATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGGCATCTGAGCACCTCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGTCATCTGAGCACCATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCAT
                                                                                                                              TCCTGGTGGGGCTGTCCGGGGAAGACACCTACCCCTGGGGGCACTCAAGGTGTGCCCCAN 899
                                                                                                                                                                                                                                                                                                                                                                                                                       AGGTGTGGCCCGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCTCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  42.8%;
98.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 841.2; DB 5;
Pred. No. 4.7e-214;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
  909
 å
  TIRNA
  linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  915;
  EST 25-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4:
                                                                                                                                                                                                                                                                           1188
                                                                                                                                                                                                                                                                                                                                                                                         1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                  1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                  1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  528
                                                                                                                                                                                                                                              779
                                                                                                                                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       480
```

```
ঠ
                                   밁
                                                                 S
                                                                                                          밁
                                                                                                                                          S
                                                                                                                                                                               밁
                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        source
   523
                                                                     463
                                     301
                                                                                                          241
                                                                                                                                            403
                                                                                                                                                                                 181
                                                                                                                                                                                                                   343
                                                                                                                                                                                                                                                      121
                                                                                                                                                                                                                                                                                                                                                                                                                         164 CGGAGCTGCCTCCTGACTGCCGCGGGAGGCGAAGCAAATTCGGCGGAGATCAGCCGAA 223
                                                                                                                                                                                                                                                                                          283
                                                                                                                                                                                                                                                                                                                                                                224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           883;
                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.lnl.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 (bases 1 to 909)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mRNA sequence.
BI753688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BI753688.1 GI:15745266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          603023590F1 NIH_MGC_114 Homo sapiens cDNA clone IMAGE:5193959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hominidae; Homo
                                                                                                                                                                                                                                                                            ATAGATCGAGCGTACAAGGGAATGCCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTC 342
                                                                                                                                                                                                                                                                                                                                                   -AGAGCAAGTGGGTGGATATGCTGGGAGACTGGGAGAAATACAAAAAGCAGCAGAAAAGCTC 282
 CTGGCATATGAGGAGTATAACCCGGAGGTGGGCCTACTGCAGGGACCTGAGCCACATCGCC 582
                                                                                                                                                                                                       CTGAACATTGAGGAAATGAAGTTGAAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAG 402
                                                                                                                                                                                                                                                                                                                             GAGAGCAAGTGGGTGGATATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAAGCTC 120
                                                                     AAGCATATATTCTTCAGGGATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTC 522
                                                                                                                                            GGCAAGAGGTCATCTGAGCACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGG 462
                                                                                                                                                                                                                                                        ATAGATCGAGCGTACAGGGGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTC
                                                                                                                                                                                                                                                                                                                                                                                                    CGGAGCTGCCTCTGTGACTGCGCGGGAGGCGAAGCAAATTCGGCGGGAGATCAGCCGAA 60
                                                                                                                                                                                 CTGAACACTGAGGAAATGAAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      e: LLAM11485 row: d column: quality sequence stop: 884.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /clone lib="NIH_MGC_114"
/note="Organ: brain; Vector: pCMV-SPORT6; Site_1: NotI;
Site_2: EcoRV (destroyed); RNA source anonymous pool of 6
male brains, age range 23-27 yo. Library is oligo-dT
primed and directionally cloned (EcoRV site is destroyed
upon cloning). Average insert size 1.5 kb, insert size
range 1-3 kb. Library is normalized and enriched for
full-length clones and was constructed by C. Gruber
(Invitrogen). Research Genetics tracking code 019. Note:
this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:5133959"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 814.6; DB 3;
Pred. No. 6.4e-207;
0; Mismatches 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             909;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              υ
                                                                                                                                                                                                                                                      180
                                                                                                          300
                                                                                                                                                                               240
                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
BU526609
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         맑
                                                                      FEATURES
                                                                                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCESSION
                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                     ORGANISM
                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      954 bp π
AGENCOURT 10181753 NIH MGC 101 Homo
IMAGE:6536307 5', mRNA sequence.
BU526609
                                                                                                                                                                                                                                   Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                    found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
Plate: LLCM2697 row: h column: 03
High quality sequence stop: 627.
                                                                                                                                                                                                                                                                                                     1 (bases 1 to 954)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, M
                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                            cDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                         Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                        Inpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BU526609.1 GI:22837050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGCAGGG 1065
                                                                                                                                                                                                                                                                                                                                                                                                                                       sapiens (human)
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        909
                                                                                                                                                                                                                                                                                                            Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sapiens cDNA clone
                                                                                                                                                                                                                                                                                                            Gene
```

linear

EST 13-SEP-2002

Collection

þe

```
CAGGG--ATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGA 1056
                                                                                                                                                                       GACGTCCA-GGTGTGGCCCGTGGG--CACGTTTTTTGCAACCGGTTCGTTGATACCTGGGC 998
                                                                                                                                                                                                                                                                                                        CAGGCGTTGATGCCG-ATAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACGGGATCTCTCTCGGGCTCACCCTGCGCCCTGTGGGACGTGTATCTGGTAGAAGGCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACAAGAAAGATCTATGTGGGCAGTGTTCCCCGTTAGGCTGCCTCATCCGGATATCGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACAAGAAAGATCTATGTGGGCAGTGTTCCCCCGTTAGGCTGCCTCATCCGGATATTGATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGGCATATGAGGAGTATAACCCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCC
                                                                                                                                 GACGTTCACGGTGTGGCCCGTGGGGCCACGTTTTTGCAACGGGTTCGTAGATACCTGGGG
                                                                                                                                                                                                                                                                  CAGGCGTAGATGCCGAATTACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAA
                                                                                                                                                                                                                                                                                                                                                                                                   GACGGGATCTCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCAAGACCAACAGGAGCATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCCAAGACCAACAGGAGCATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCAGTGAGAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCAGTGAGAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGG 702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCTTGTTCCTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTG 642
CCAGGCATTGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGGAAACTAACAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCCTTGTTCCTCCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTG
                                                                                                                                 840
                                                                                                                                                                                                                                                                                                                                 941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                               780
                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
```

EST 29-AUG-2001

```
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        517 ATCCTCCTGGCATATGAGGAGTATAACCCCGGAGGTGGGCCTACTGCAGGGACCTGAGCCAC
                         GTGCCCAGCCCGG-CCCTGGCTCAGGGAGG-ACCTCAGGGTTCCTGGAGATTCCTGCAGT 1354
                                                                                                                          TCCACACCCTGTCCTGGTGGGGCTGTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGT
                                                                                                                                                                                                                         CCACCAGCCCGGTTCCCGCGGCCCATTTGGTCAGCTTCCCCGCCACGGGCACCGGTCCTCGTTCT
                                                                                                                                                                                                                                                                                                                            AAGCAGGGGGACCTGCAACCCCCAGCCAAACCCCGAGCAAGGGTCGTCGGCATCCAGGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                             AAGCAGGGGGACCTGCCACCCCCAGCCAAACCCCGAGCAAGGGTCGTCGGCATCCAGGCCT 1116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGA 1056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGAACAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCGAACAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTC 936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTGATTGACGGGATCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATCAGGACAAGAAAGATCTATGTGGGCAGTGTTCCCCGTTAGGCTGCCTCATCCGGATA 816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGGGGCTCCAAGACCAACAGGAGCATGTGGTAGCCACGTCACAACCCCAAGACCCATGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGCTGGCCAGTGAGAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCTGGCCAGTGAGAGGCACTCCCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATCGCCGCCTTGTTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCGCCGCCTTGTTCCTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATCCTCCTGGCATATGAGGAGTATAACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCAC 60
GTGCCCAGCCCGGCCCCTGGCTCAAGGAGGAACCTCAGGGTTCCTGGGAGATCCTGGCAG 840
                                                                                                                                                                                               CCACCAGCCCGGGTCCCGCCGCCATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCT
                                                                                                                                                                                                                                                                                                TTGATTGACGGGATCTCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAA 876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATCAGGACAAGAAAGATCTATGTGGGCAGTGTTCCCCGGTTAGGCTGCCTCATCCGGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGGGGCTCCAAGACCAACAGGAGCATGTGGTAGCCACGTCACAACCCAAGACCATGGGG
                                                                                              TTCACACCCTGTCCTGGTGGGGCTGTCCGGGAAAACACCTACCCTGTGGGCACTCAGGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone="IMAGE:6536307"
/tissue_type="epidermoid carcinoma, cell line"
/tissue_type="epidermoid carcinoma, cell line"
/lab host="DH10B (phage-resistant)"
/clone_lib="NIH MGC 101"
/clone_lib="NIH MGC 101"
/note="Organ: lung; Vector: pOTB7; Site_1: EcoRI; Site_2:
XhoI; cDNA made by oligo-dT priming; Directionally cloned
into EcoRI/XhoI sites using the following 5' adaptor:
GGCACGAG(G). Library constructed by Ling Hong in the
laboratory of Gerald M. Rubin (University of California,
Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and
Superscript II RT (Life Technologies). Note: this is a
NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    40.6%;
98.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           <u>;</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 797.6; DB 5;
Pred. No. 2.4e-202;
0; Mismatches 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                1236
                                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                                                                               600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 . 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              636
                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JOURNAL COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 7
BI522600
LOCUS
                                      8
                                                                                                                                                                                          멹
                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                              문
                                                                                              밁
                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
VERSION
  맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
Matches 872; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hominidae; Homo.

1 (bases 1 to 919)

1 (bases 1 to 919)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

L Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-r@mail.nih.gov

Tissue Procurement: Life Technologies, Inc.

cDNA Library Preparation: Life Technologies, Inc.

cDNA Library Preparation: Life Technologies, Inc.

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

plate: LLAM11605 row: g column: 03

High quality sequence stop: 834.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1355
                                             1075
                                                                                                                                               1015
                                                                                              121
                                                                                                                                                                                                                                                955
                                                                                                                                                                                                                                                                                                                                              895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
  181
                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                              _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BI522600.1 GI:15347392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   603175612F1 NIH_MGC_121 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E CHO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAA
                            CCCCCAGCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGC 1134
                                                                                                                          GTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCA
                                                                                                                                                                                                                         GGCCCGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACT 1014
                                                                                                                                                                                                                                                                                                                          CCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGT
                                                                                              GTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCAA
                                                                                                                                                                                                  GGCCCGTGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGTATGAGGACACT 120
                                                                                                                                                                                                                                                                                                CCGATAACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     844
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="Torgan: brain; Vector: pCMV-SPORT6; Site 1: Not1; Site 2: ECORV (destroyed); RNA source anonymous pool of fetal brains, female age 20 weeks, female age 24 weeks, and male age 26 weeks. Library is oligo-dT primed and directionally cloned (ECORV site is destroyed upon cloning). Average insert size 1.7 kb, insert size range 0.7-3.5 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 017. Note this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /lab_host="DH10B"
/clone_lib="NIH_M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone="IMAGE:5240090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                              40.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     lib="NIH_MGC_121"
                                                                                                                                                                                                                                                                                                                                                                                            <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                          Score 797.4; DB 3; Pred. No. 2.7e-202; 0; Mismatches 26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sapiens cDNA clone IMAGE:5240090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gene Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
```

241

181

121 637 밁 ঠ 밁 ş

61

577

ب

828;

ર્ક

밁

781

ঠ

밁

199

밁

S 밁 ঠ 밁 S 문 S 밁 ð 밁 5 밁 8 밁 र् 밁 8 B ð

1117

541

1057

919;

017. Note:

ω

9

Gaps

U

60

180 1074

```
REFERENCE
AUTHORS
TITLE
                                                                               JOURNAL COMMENT
                                                                                                                                                                                                                                                           ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                          RESULT 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                र्
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                              SOURCE
                                                                                                                                                                                                                                               KEYWORDS
                                                                                                                                                                                                                                                                                                           DEFINITION
                                                                                                                                                                                                               ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                          1787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1554
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                           CD653466
CD653466.1 GI:31891804
EST.
                            Contact: Daniela S. Gerhard, Ph.D. Office of Cancer Genomics
National Cancer Institute / NIH
Bldg 31 Rm10A07 Bethesda, MD 20892
                                                                                          Hominidae; Homo.

1 (bases 1 to 868)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian

Unpublished (1999)
                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                       CD653466 BD mRNA linear EST 18-JUN-2003
AGENCOURT_14539069 NIA Human H1 Embryonic Stem Cell cDNA Library
(Long) Homo sapiens cDNA clone IMAGE:30423486 5', mRNA sequence.
Tissue Procurement: Irene Ginis and Mahendra Rao,
                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                            Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGAAGACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCG 1194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCATGGCTGG-ATAATTTCCCTAGGCTTAACAACCCAAGCAAGCTTC-GCGTCCTCGTTT 1726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCACTIGGAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAA-----GCATCTGGGCCAGGGC 1668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCGGAGCGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCTCAGGGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTCAGGGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGGCTGTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGGCCCATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGT 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGAAGACCCTCTGCAAGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCG
                                                                                                                                                                                                                                                                                                                                                                                                           AGATGGA 906
                                                                                                                                                                                                                                                                                                                                                                                                                                        AGATGGA 1793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCACTTGGAAAGTTCTCAGTTCCCCTCCCAGCTTCTAGAAACGATTCTTGGGCCCACGGCT 779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTCAGAGCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCT 1613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGGAGCGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCA-CCCC 1553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGGTCCGTGCCATATCCCAGGAGGACCAGCTGGCCCCCCTGCTGGCAGGCTGAACACCCT 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGGCTGTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGCCCATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGT
                cgapbs-r@mail.nih.gov
                                                                                                               Gene
                                                                                                               Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
 S
                                밁
                                                         ঠ
                                                                                                片
                                                                                                                            Ş
                                                                                                                                                                밁
                                                                                                                                                                                         Ş
                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                           Query Match
                                                                                                                                                                                                                                                                                              Matches 803;
                                                                                                                                                                                                                                                                                                               Local Similarity
                                                                                                 121
                                                                                                                                568
                                                                                                                                                                                                508
                                                                                                                                                                61
                                                                                                                                                                                                                              <u>,,,</u>
                                                                                                                                                                                                                                                  AGCGGGACATTAAGGAAGCATATATTCTTCAGGGATCGATACGGAACCAAGCAGCAGCAGCAG
 GGGACCGTCCAGGGGCTCCAAGACCAACAGGAGCATGTGGTAGCCACGTCACAACCCAAG
                                                                                                                                                                                                CTACTCCACATCCTCCTGGCATATGAGGAGTATAACCCCGGAGGTGGGCTACTGCAGGGAC
                                                     CTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCCCTGCAGGGATTTTCACAGCCCAAATGGC
                                                                                                                              CTGAGCCACATCGCCGCCTTGTTCCTCCTCTATCTTCCTGAGGAGGATGCATTCTGGGCA
                                                                                                                                                                CTACTCCACATCCTCCTGGCATATGAGGAGTATAACCCCGGAGGTGGGCTACTGCAGGGAC
                                                                                                                                                                                                                                                                                              Conservative
```

39.9%;

0; Mismatches Score 783.6; DB 6; Pred. No. 1.3e-198; 0; Mismatches 19;

Indels Length

1:

Gaps

180

627 120

240 687

```
cDNA Library Preparation: Yulan Piao and Minoru Ko
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC c
can be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: NDAMS04 row: j column: 07
High quality sequence stop: 695.
/clone_lib="NIA Human H1 Embryonic Stem Cell cDNA Library
                                                                                                                                                                                                                                                                                                                                                                             /tissue_type="Embryonic Stem cells"
/cell_line="WA01"
/lab_host="DH10B (T1 phage-resistant)"
                                                                                                                                                                                                                                                                                                                                                                                                                            /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                clone="IMAGE:30423486"
                                                                                                                                                                                                                                                                                                                                                                                                                                                 organism="Homo sapiens"
```

```
REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                             RESULT 9
BU542901
LOCUS
                                                                                                                                                              JOURNAL COMMENT
                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                        ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ર્ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                             SOURCE
                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B
                                                                                                                                                                                                                                                  ORGANISM
                                 source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1048
                                                                                                                                                                                                                                                                                                                                                                                 781
                                                                                                                                                                                                                                                                                                                                                                                                                            721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                            881 bp
AGENCOURT 10334768 NIH MGC_40 Homo
5', mRNA Bequence.
BU542901
BU542901.1 GI:22853384
                                                                                                                                    1 (bases 1 to 881)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: DCTD/DTP
                                                            CDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://imagge.llnl.gov
http://imagge.llnl.gov
plate: LLCM2770 row: n column: 16
                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                  Homo
                                                                                                                                                                                                                  Hominidae; Homo.
                                                                                                                                                                                                                                                             Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                             ACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCTGTCCGGGAA 1269
                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTCCAGGCCCACCAGCCCGGTTCCCGCGGCCCATTTGGTCAGCTT-CCCCGCCACGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTCCAGGNCCAGCCCGGTTCCCNGCGNCCAATTGGTCAGCTTCCCCCGCCACGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTAACAAGAAAGCAGGGGGACCTGCCACCCCCAGCCAAACCCCGAGCAAGGGTCGTCGGCA 1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GATACCTGGGCCAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAA 1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGGTAGAAGGCGAACAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCATGGGGCATCAGGACAAGAAGATCTATGTGGGCAGTGTTCCCCCGTTAGGCTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGCGCCTCACGAAGACGTCCAGGTGTGGCCCGTGGGCACGTTTTTGCAACCGGTTCGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGGTAGAAGGCGAACAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGTTCAGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCCGGATATTGATGACGGGATCTCTCTCGGGCTCACCCTGCGCCTGTGGGACGTGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCATGGGGCATCAGGACAAGAAAGATCTATGTGGGCAGTGTTCCCCGTTAGGCTGCCTC
                                                   quality sequence
                                                                                                                                                                                                                                                  sapiens
/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                        ity sequence stop: 642.
Location/Qualifiers
                                                                                                                                                                                                                          Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                          mRNA
                                                                                                                                                                                                                                                                                                                sapiens
                                                                                                                                                                                 Gene
                                                                                                                                                                                                                                                                                                                linear EST 13-SEP-2002 CDNA clone IMAGE:6574864
                                                                                                                                                                                                                                                                                                                                                                                 823
                                                                                                                                                                                 Collection
                                                                                              can
                                                                                              þe
                                                                                                                                                                                                                                                                                                                                                                                                                                               1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                          780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       420
              S
                                       밁
                                                          δ
                                                                                                  S
                                                                                                                            밁
                                                                                                                                                                    В
                                                                                  밁
                                                                                                                                            Ś
                                                                                                                                                                                        Ś
                                                                                                                                                                                                                밁
                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                   1020
781
                                         721
                                                                                   661
                                                                                                       902
                                                                                                                            601
                                                                                                                                                  842
                                                                                                                                                                      541
                                                                                                                                                                                          782
                                                                                                                                                                                                                 481
                                                                                                                                                                                                                                                          421
                                                                                                                                                                                                                                                                                662
                                                                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                                          602
                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                     542
                                                                                                                                                                                                                                     722
                                                                                                                                                                                                                                                                                                                                                                                          241
                                                                                                                                                                                                                                                                                                                                                                                                               482
                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                        422
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            808;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N
```

```
/clone="IMAGE:6574864"
/tissue_type="carcinoma, cell line"
/lab_host="Dulos (phage-resistant)"
/clone_lib="NIH_MCC_40"
/note="Organ: prostate; Vector: pOTB7; Site_l: XhoI;
Site_2: ECORI; cDNA made by oligo-dT priming.
Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-CDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library."
```

242 TGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAGG GGGCACGTTTTTGCAACCGGTTCGTTGATACCT-GGGCCAGGGATGAGGACACT-GTGCT CAAGAATCGCCTTTAAGGTTCAGCAGAAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCGT TCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATAA TGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAGC GAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATGA CAAGCAATCTTAAGGGCCTCCTATGAAAGAACCTAACCAAGAAAGGCCAGGGGGGGACCC CAAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCC ATGTGGTAGCCACGTCACAACCCCAAGACCATGGGGCATCAGGACAAGAAGAACTCTATGTG ATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTATA 541 GAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAAATGA TGCTGGGAGACTGGGAG-AATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAGG CAAGAATCGCCTTTAAAGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCGT TCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATAA ATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGTG TTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCCC TTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCCC ACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTATC ATCGATACGGAACCAAGCAGCGGAACTACTCCACATCCTCCTGGCATATGAGGAGTATA AGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAGC AGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAGC Conservative 38.3%; 0; Score 751.6; DB 5; Pred. No. 5.2e-190; 0; Mismatches 39; Indels Length ω --Gaps 961 660 901 600 841 540 781 480 721 420 661 360 601 240 481 180 421 120 361 60

```
RESULT 10
BI597531
S
                                                                                     á
                                                                                                                                           밁
                                                                                                                                                                                     ঠ
                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                            片
                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Bource
  1171
                                                                                             1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                         1051 ACAAGAAAGCAGGGGGACCTGCCACCCCAGCCAAACCCGAGCAAGGGTCGTCGGCATCC
                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                       991
                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                      783;
                                                                                                                                                                                                                                        _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Miklos Palkovits, M.D., Ph.D.
Tissue Procurement: Miklos Palkovits, M.D., Ph.D.
CDNA Library Preparation: Michael J. Brownstein (NHGRI), Shiraki
Toshiyuki and Piero Carninci (RIKEN)
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM11745 row: f column: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hominidae, Homo.

1 (bases 1 to 818)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA sequence.
BI597531
BI597531.1 GI:15490470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BI597531 816
603247059F1 NIH_MGC_96 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
  CCAGGCCCACCAGCCCGGTTCCCGCGGCCCATTTGGTCAGCTTCCCCGCCACGGCACCT 1230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCCAAACCC
                                                                            ACCTGGGCCAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTA 1050
                                                                                                                                              ACAAGAAAGAAGGGGGACCTGCCACCCCCAGCCAAACCCGAGCAAGAGTCGTCGGCATCC
                                                                                                                                                                                                                                        AGCGGGGTCAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCCTCTATGAAGAAACTA
                                                 quality sequence stop: 811.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sapiens (human)
                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                               /clone lib="NIH_MGC_96"
//clone lib="NIH_MGC_9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /tissue_type="hypothalamus"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               clone="IMAGE:5294607"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1. .818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1089
                                                                                                                                                                                                                                                                                                                                                            37.7%;
                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                 Score 741.2; DB 3;
Pred. No. 3.1e-187;
D; Mismatches 34;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bbp m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      nRNA linear EST 07-SEP-2001 cDNA clone IMAGE:5294607 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gene
                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Collection (MGC)
                                                                                                                                                                                                                                                                                                                                                                                    818;
                                                                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                              120
                                                                                                                                                                                          1110
                                                                                                                                                                                                                                        60
                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 11
BQ920917
LOCUS
                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                 COMMENT
       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                                                                                                                                                       TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
```

```
1770 GCTCGAGAGAGTTCAGAGATTGGAACACACCAGACCCCA 1808
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                   Hominidae; Homo.

1 (bases 1 to 930)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian

Unpublished (1999)
                                                       found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Plate: LLCM2653 row: f column: 11
                                                                                                                                                                                                                                                                    Email: cgapbs-r@mail.nih.gov
Tissue Procurement: ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (human)
Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      5', mRNA sequence.
BQ920917
BQ920917.1 GI:22335834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BQ920917 930 bp mRNA linear EST 20-AUG-2002
AGENCOURT 8926259 NIH MGC 101 Homo sapiens cDNA clone IMAGE:6462826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                           Contact: Robert Strausberg, Ph.D.
                                                                                                                                            cDNA Library Preparation: Rubin Laboratory
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCGCGTCCTCGTTTTA-TTTTTGGTTAAACTTATGAAAATGTATTAAGAAAGAGTGCA 1769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTGATTCCGACCAGGGCACCCCCTTCAGAGCTAGGGACGAACAGCCGTGTGCTCCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATTATGATTTCAGACAGAGCTGCTGGGTCCGTGCCATATCCCAGGAGGACCAGCTGGCC 1470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAGTGGAACTCCATGCCCCGCCTCCCAACGGACCTGGACGTAGAGGGCCCTTGGTTCCGC 1410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTTCTTCCACACCCTGTCCTGGTGGGGCTGTCCGGGAAGACACCCTACCCTGTGGGCACT 1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTCGAGAGAATTCCGAGATGGAACACACCAAGAACCA 818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCTGCTGGCAGGCTGAACACCCTGCGGAGCGGGTGAGATCGGCTTTCGCTGCACCCAGC 1530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATTATGATTTCAGACAGAGCTGCTGGGCCCGTGCCATATACCAGGAGGACCAGCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGGTGTGCCCAGCCCGGCCCTGGCTCAGGGAGGACCTCAGGGTTCCTGGAGATTCCTG 1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGTTCTTCCACACCCTGTCCTGGTGGGGCTGTCCGGGAAGACACCTACCCTGTGGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCAGGGCCTTGCCTCTGCGG-CTCCACTTGGAAAGTTCTCAGTTCCCTCCAGGCTTCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCAGGGCCTTGCCTCTGCGGCCTCCACTTGGAAAGTTCTCAGTTCCCTCCAGGCTTCTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTGATTCCGACCAGGGCACCCCCTTCAGAGCTAGGGACGAACAGCAGTGTGCTCCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGTGGAACTCCATGCCCGGCCTCCCAACGGACCTGGACGTAGAGGGCCCTTGGTTCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCGCATCCTCGTNTTATTTTTTGGTTAAACTTATTGAAAATGTTTACGAAAGGAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCTGCTGGCAGGCTGAACACCCTGCGGAGCGGGTGAGATCGGCTTTCGCTGCACCCAGC
                              quality sequence stop: 658
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                           Gene
                                                                                                                                                                                                                                                                                                                                                                                           Collection (MGC)
                                                                                                                                                      àq,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
```

```
밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 810;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bource
                                                                                                                                                                                                                                                                                                                                                                                                                                                    1022
717
                                                                                                                                                                                                                                                                                                                                                                                     537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    722
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      542
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          482 ATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTATA
                                                                                                                                                                                                                                                                                    CCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCACCCTGCGCCTGTGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTATC
                                 TTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCC--TGGTGGGGC
                                                                                                                                                         CCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                      AGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCCAACACAGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATCGATACGGAACC-AGCAGCGGGAACTACTCCACATCCTCCTGG-ATATGAGGAG-ATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Homo sapiens"
/mol type="mrNA"
/db_xref="taxon:9606"
/db_xref="taxon:9606"
/clone="IMAGE:6462826"
/tissue_type="spidermoid carcinoma, cell line"
/tissue_type="spidermoid carcinoma, site_l: EcoRI; Site_2:
/note="Organ: lung; Vector: pOTB7; Site_1: EcoRI; Site_2: EcoRI; Site_2:
/note="Organ: lung; Vector: pOTB7; Site_1: EcoRI; Site_2: EcoRI; Site_2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            37.3%;
97.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 732.6; DB 5;
Pred. No. 6.6e-185;
0; Mismatches 14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 930;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                     1259
                                                                                                                                                                                    1201
                                                                                                                                                                                                                                                                                                                                                                                     596
                                                                                                                                                                                                                                                                                                                                                                                                                                              1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      57
                                                                                                                    716
                                                                                                                                                                                                                                                   656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
```

S

В ક 밁 र् 밁 ક

ð 밁

S 밁 S 밁 S В

S 밁 S 밁

```
JOURNAL COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 12
BM560320
                   á
                                                           밁
                                                                                               S
                                                                                                                                           밁
                                                                                                                                                                               S
                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bource
                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1260 TGTCCGGGAAGACACCTACCC---TGTGGGCACTCAGGGTGTGCCCAGCCCGG
                       181
                                                                                                   121
                                                                                                                                           158
                                                                                                                                                                                 61
                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                            801;
                                                                                                                                                                                                                                                 1 ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
http://image.llnl.gov
plate: LLNM12766 row: i column: 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            High quality sequence start: 36
High quality sequence stop: 745
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hominidae; Homo.

1 (bases 1 to 1013)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BM560320 1013 bp
AGENCOURT_6564065 NIH_MGC_119 Homo
5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BM560320.1
                                                                                                                                                                  AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGGACAAGGGGCCTTAAGCCTTTTCGA 120
AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                            ATGGACGTGGTAGAGGTCGTGGGTAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGTCCGGGAAGACACCCTACCCTGTGGGGAACTTCAGGGTGTGCCCAGCCCCG
                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                   /lab_host="NHHOB"
/clone_lib="NHH_MGC_119"
/clone_lib="NHH_MGC_119"
/clone_lib="NHH_MGC_119"
/note="Organ: brain; Vector: pCMV-SPORT6; Site_1: NotI;
Site_2: EcoRV (destroyed); RNA source normal medulla from anonymous male age 27. Library is oligo-dT primed and directionally cloned (BcoRV site is destroyed upon cloning). Average insert size 1.3 kb, insert size range 0.9-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 013. Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone="IMAGE:5744726"
/tissue_type="medulla"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                           37.2%;
                                                                                                                                                                                                                                                                                                          ٥,
                                                                                                                                                                                                                                                                                                                           Score 730.2; DB 3;
Pred. No. 3e-184;
                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                mRNA
sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linear EST 20-FEB-2002 CDNA clone IMAGE:5744726
                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Collection (MGC)
                                                                                                                                                                                                                                                                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1309
                                                                                                                                                                                                                                                                                                          Gaps
                                                               277
                                                                                                   180
                                                                                                                                           217
                                                                                                                                                                                                                            157
                                                                                                                                                                                                                                                                  60
```

밁

```
RESULT 13
BI601698
LOCUS
                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                     SOURCE
ORGANISM
                                                                                                                                                                                                                 REFERENCE
                                                                                                                                               COMMENT
                                                                                                                                                                                                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                                AUTHORS
TITLE
                                                                                                                                                              JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                      BI601698
BI601698.1
EST.
Contact: Robert Strausberg, Ph.D.

Email: cgapbe-r@mail.nih.gov

Tissue Procurement: Miklos Palkovits, M.D., Ph.D.

CDNA Library Preparation: Michael J. Brownstein (NHGRI), Sh

Toshiyuki and Piero Carninci (RIKEN)

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incytte Genomics, Inc.

Clone distribution: MGC clone distribution information can

found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                       1 (bases 1 to 839)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, M
                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                   Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                          mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                            603249940F1 NIH_MGC_96 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                BI601698
                                                                                                                                                            Unpublished (1999)
                                                                                                                                                                                                                                   Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCGGGCTCACCCTGCGCCTGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGCAGTGTTCC--CCGTTAGGCTGCCTCATCC-GGATATTGATTGACGGG---ATCTCT 834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTGCAGGGATTTCACAGCCCAAATGGCGGGGACCGTCCAGGGGGGCTCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATCGATACGGAACCAAGCAGCGGGAACTACTTTACATCCTCCTGGCGTATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACATCCAGCAGATGGACCTGGACGTAAGTGGGACATTAAGGAGGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAAAAGGGCAAGAGGTCATCTGAA 517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAAGGGCAAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAATTCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGCTGGGAGAATGGGACACCTACAAAAACAGCAGAAAGCTCATAGATCGAGCGTACCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCGGGCTCACCCCTGCGCCTCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTTTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTGCGCGGGAGGTGAAGCAAATTCGGCGGGAGATCAGCCGAAAGAGCAAGTGGGTGAAA
                                                                                                                                                                                                                                                                                                                                          GI:15494637
                                                                                                                                                                                                                                                  Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                            mo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      859
                                                                                                                                                                              Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                cDNA clone IMAGE:5301752 5',
                                                                                                                                                                              Gene
                                                                                                                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                Collection
                                                                                                                                                                                                                                                                                                                                                                                                              EST 07-SEP-2001
                                                                                          Shiraki
                       ĕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         337
     S
                                      밁
                                                              ঠ
                                                                                                        밁
                                                                                                                                         8
                                                                                                                                                                              밁
                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 794;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   source
                                                                         1591
                                                                                                                                             1531
                                                                                                                                                                                                                                                                                       1411
                                                                                                                                                                                                                                                                                                                                                             1351
                                                                                                                                                                                                                                                                                                                                                                                                                                   1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1051
                                                                                                            541
                                                                                                                                                                                481
                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      991 ACCTGGGCCAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAACTA 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    High
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Plate: LLAM11763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       http://image.llnl.gov
                                                                TCAGGGCCTTGCCTCTGCGGCCTCCACTTGGAAAGTTCTCAGTTCCCTCCAGGCTTCTAG 1650
                                                                                                                                                                                                    CCCTGCTGGCAGGCTGAACACCCTGCGGAGCGGGTGAGATCGGCTTTCGCTGCACCCAGC 1530
                                                                                                                                                                                                                                                                        CATTATGATTTCAGACAGAGCTGCTGGGTCCGTGCCATATCCCCAGGAGGACCAGCTGGCC 1470
                                                                                                                                                                                                                                                                                                                                                CAGTGGAACTCCATGCCCCGCCTCCCAACGGACCTGGACGTAGAGGGCCCTTGGTTCCGC 1410
                                                                                                                                                                                                                                                                                                                                                                                                                CAGGGTGTGCCCAGCCCGGCCCTGGCTCAGGGAGACCTCAGGGTTCCTGGAGATTCCTG 1350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CGTTCTTCCACACCCTGTCCTGGTGGGGCTGTCCGGGAAGACACCTACCCTGTGGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCAGGCCCACCAGCCGGTTCCCGCGGCCCATTTGGTCAGCTTCCCCGCCACGGGCACCT 1230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACAAGAAAGCAGGGGGACCTGCCACCCCCAGCCAAACCCGAGCAAGGGTCGTCGGCATCC
     CAGTGGAACTCCATGCCCGGCCTCCCAACGGACCTGGACGTAGAGGGCCCCTTGGTTCCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTGATTCCGACCAGGGCACCCCCTTCAGAGCTAGGGACGAACAGCCGTGTGCTCCCACC
                                                                                                                                                                                                                                                      CATTATGATTTCAGACAGAGCTGCTGGGCCGTGCCATATACCAGGAGGACCAGCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                  CAGGGTGTGCCCAGCCCGGCCTGGCTCAGGGAGGACCTCAGGGTTCCTGGAGATTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CGTTCTTCCACACCCTGTCCTGGTGGGGGCTGTCCGGGAAGACACCTACCCTGTGGGCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCAGGCCTACCAGCCCGGTTCCCCGCGGCCCATTTGGTCAGCTTCCCTGCCACGGCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACAAGAAAGAAGGGGGACCTGCCACCCCCAGCCAAACCCGAGCAAGAGTCGTCGGCATCC
                                                                                                                                                                                  CCCTGCTGGCAGGCTGAACACCCTGCGGAGCGGGTGAGATCGGCTTTCGCTGCACCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGCGGGGTCAGGCATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTATGAAGAAAACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                quality sequence stop: '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /clone_lib="NIH_MGC_96"
/clone="Organ: brain; Vector: pBluescriptR (modified /note="Organ: brain; Vector: pBluescriptR (z sall-XhoI pBluescript KS+); Site_1: BamHI; Site_2: Sall-XhoI (gtcgag); Oligo-dT primed using primer
[gtcgag]; Oligo-dT primed using primer
[gtcgag]; Oligo-dT primed to rimer size 2.3 kb and normalized to ROT 5. This is a primary library enriched for full-length clones and constructed using the Cap-trapper method (Carninci, in preparation). Library constructed by M. Brownstein (NIMH/NHGRI, National Institutes of Health). Note: this is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /tissue_type="hypothalamus"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             clone="IMAGE:5301752"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                organism="Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        36.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      row: p
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 724.8; DB Pred. No. 8e-183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    column:
op: 732.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sapiens'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         u
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1110
                                                                                                                                               1590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                                                                                                                                                                                                                                                                          420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          240
                                          660
                                                                                                              600
                                                                                                                                                                                  540
                                                                                                                                                                                                                                                        480
```

4

18

8 밁 8 밁 S 당 ð 밁 5 밁 δ

밁

S 밁

밁

밁 δ 밁 Ś 밁 δ

S

8 밁 S 밁

밁

```
RESULT 14
BM553146
LOCUS
                                                                                                                                                                                                                                                                  ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 740; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1770
                                             162
                                                                                                                     102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           780
                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGENCOURT 6542478 NIH_MGC_119
5', mRNA sequence.
BM553146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.lnl.gov
http://image.lnl.gov
Plate: LLAM12761 row: k column: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 (bases 1 to 1141)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BM553146.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hominidae; Homo.
         AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                AAATACGAAAAAGGGACACCGAGCTGGGCTGCCAGAGGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                  ATGGACGTGGTAGAGGTCGCGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                      ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCTCGA-GAGAGATTCAGA-GATGGAACACACAGACCCCAGATCACAAAGCCAATC 1827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ĊTTCGCATCCTCGGTTTATGTGGGTTAACGTTATGAAAAGTGCTTTAAGAACAGAGTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCGCGTCCTCGTTTTATTTTTGGTTAAACTTATGAAAATGTATTAAGAA-AGAGTGCA 1769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    quality sequence stop: 665
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens
                                                                                                                                                                                                                                                                                         /clone_lib="NIH_MGC_119"

/note="Organ: brain; Vector: pCMV-SPORT6; Site_1: NotI;
Site_2: EcoRV (destroyed); RNA source normal medulla from anonymous male age 27. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.3 kb, insert size range 0.9-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 013. Note:
                                                                                                                                                                                                                                                                               (Invitrogen).
this is a NIH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /tissue_type="medulla"
/lab_host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        clone="IMAGE:5742850"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             organism="Homo sapiens"
                                                                                                                                                                                                           36.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            type="mRNA"
                                                                                                                                                                                                                                                                                 NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                          0,
                                                                                                                                                                                        Score 718.2; DB 3;
Pred. No. 5.1e-181;
0; Mismatches 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              bр
9 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gene
                                                                                                                                                                                          Indels
                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear EST 20-FEB-2002 CDNA clone IMAGE:5742850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Collection (MGC)
                                                                                                                                                                                        1;
                                                                                                                                                                                      Gaps
         180
                                         221
                                                                             120
                                                                                                                161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     719
                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                      KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 15
BI828272
                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
       FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                         COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM11422 row: n column: 16
High quality sequence stop: 822.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                      Hominidae; Homo.

1 (bases 1 to 831)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian

Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                             BI828272
603078163F1 NIH_MGC_119
mRNA sequence.
                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                            EST
                                                                                                                                                                                                                                                                                                                                                                                                         BI828272
BI828272.1 GI:15939822
                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTCGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCA 758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTG-AGAGGCACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACAGGA 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATCGATACCGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAGATGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT 701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                831
Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                bp mRNA linear EST 04-OCT-2001 sapiens cDNA clone IMAGE:5169999 5',
                                                                                                                                                                                                                                           Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             860
                                                                                                                                                                                                                                             Collection
                                                                                                e
b
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        641
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     401
```

S 밁 Ś 밁 á

```
Query Match 36.3%;
Best Local Similarity 95.4%;
Matches 801; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                            1160
                                                                                                                   1100
                                                                                                                                                                                                               1040
                                                                        660
                                                                                                                                                                 109
                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                        186
                                                                                                                                                                                                                                                                                                                                                      481
                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                   921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGGGATCGATACGGAACCAAGCA 500
GGCAGGCCCTCCAGGCCCACCAGCCCGGTTCCCGCGGCCCATTTGGTCAGCTTCCCCGC 1219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAGCATGTGGTAGCCACGTCACA 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTATCTTCCTGAGGAGGATGCATT 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTATAACCCCGGAGGTGGGCTACTG
                                                                                                                                                                 TGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCAGCCAAACCCGAGCAAGGGT 1099
                                                                                                                                                                                                                                                                                       GTTCGTTGATACCTGGG-CCAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTA 1039
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATAACAAGAATCGCCCTTTAAGGT 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCCAAGACCATGGGGCATCAGGACAAGAAAGATCTATGTGGGCAGTGTTCCCCCGTTAGG 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCCCTGCAGGGATTTCACAGCCC 680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTATCTTCCTGAGGAGGATGCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTATAACCCCGGAGGTGGGCTACTG
                                                                     CGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGAAGACCCTCTGCAAGGGGGGAC
                                                                                                CGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAGACCCTCTGCAAGGGGGACA 1159
                                                                                                                                                                                                                                                            GTTCGTTGATACCTGGGCCCAGGGATGAGGACACTGTGCTCAAGCATCTTAGGGCCTCTA 600
                                                                                                                                                                                                                                                                                                                                                          TCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCCGTGGGCACGTTTTTTGCAACCG
                                                                                                                                                                                                                                                                                                                                                                                  TCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCGTGGGCACGTTTTTGCAACCG 980
                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATAACAAGAATCGCCTTTAAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCCTCATCCGGATATTGATTGACGGGATCTCTCTCGGGCTCACCCTGCGCCTGTGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCCTCATCCGGATATTGATTGACGGGATCTCTCTCGGGCTCACCCTGCGCCTGTGGGA 860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAATGGCGGGACCGTCCAGGGGCCTCCAAGACCAACAGGAGCATGTGGTAGCCACGTCACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCCCTGCAGGGATTTCACAGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCCAAGACCATGGGGCATCAGGACAAGAAAGATCTATGTGGGCAGTGTTCCCCCGTTAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/mol type="mRNA"
/db xref="taxon:9606"
/clone="MAGE:516999"
/tissue_type="medulla"
/lab host="DH108"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone lib="NIH MGC 119"
/clone lib="NIH MGC 119"
/clone Torgan: brain; Vector: pCMV-SPORT6; Site 1: NotI;
Site 2: ECORV (destroyed); RNA source normal medulla from anonymous male age 27. Library is oligo-dT primed and directionally cloned (ECORV site is destroyed upon cloning). Average insert size 1.3 kb, insert size range 0.9-3 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 013. Note:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (Invitrogen). Research Genthis is a NIH_MGC Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 713.6; DB 3;
Pred. No. 8e-180;
0; Mismatches 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          831;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        240
```

8

밁

S

밁

중 음

В

8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

Search completed: April 5, 2006, 15:01:52 Job time: 5327 secs

```
Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                             Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Post-processing: Minimum Match 0%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence:
                                                                                                                                                                                                No.
      10
12
13
14
15
16
17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                 and is
                                                                                                                                                                                                                                                         score greater
                                                                                                                                                                                                                                                                    Pred. No.
                                                                                                                        1964
1962.4
1952.8
1948
1936.4
              1807.4
1807.4
1807.4
1807.4
1799.4
1793.6
1612.4
                                                                                 1902
1900.4
1836.4
1812.4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB BG
                                                                                                                                                                                                                                                                                     GenEmbl:*

1: gb ba:*

2: gb_in:*

3: gb env

4: gb om

5: gb ov

6: gb p

7: gb p

8: gb p

10: gb

11: g

11: g

11: g

11: g

11: g
                                                                                                                                                                                                Score
                                                                                                                                                                            1964
                                                                                                                                                                                                                                               No. is the number of results predicted by chance to have a greater than or equal to the score of the result being printed, derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      length: 0
length: 2000000000
     IDENTITY NUC Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-10-071-838-1
1964
                                                                                                                                                                                               Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5883141 seqs, 28421725653 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     April 5,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         atggacgtggtagaggtcgc...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Copyright
                                                                                                                                                                                                                                                                                      gb_ro:*
gb_sts:*
gb_sy:*
gb_un:*
gb_vi:*
gb_htg:*
gb_pl:*
                                                                                                                                                                                                                                                                                                                                                           gb_ov:
                                                                                                                                                                                                                                                                                                                                                                                                           gb_in:*
                                                                                                                                                                                                                                                                                                                                                                                                    gb_om:*
                                                                                                                                                                                                                                                                                                                                                                                                                               gb_ba:*
                                                                                                                                                                                               Length
    1964
1964
2090
2090
2166
2304
2304
2304
2072
26447
26647
26647
2575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Match 100%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2006, 13:18:55 ; Search time 9933 Seconds
(without alignments)
11239.358 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GenCore version 5.1.7 (c) 1993 - 2006 Biocceleration Ltd.
                                                                                                                                                                                                멂
                                                                                                                        AX775945
AF540953
AX775947
BC071680
AX086847
BC075809
            AX775941
AR578516
AR578515
AX775951
AX775949
AX775949
AX833552
AX6058890
BC058890
BC078140
                                                                                                                                                                                                                            SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .....aaatgtttcctgttgaaatg 1964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11766282
Description
                                                                                                                                                                                                                                                                                                                            SOURCE
ORGANISM
                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                        RESULT 1
AX775945
LOCUS
                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οοοο
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0000
  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1220
1220
1218.4
1213.6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       876.4
876.4
876.4
876.4
876.4
876.4
876.4
876.4
876.4
874.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                882.8
879.6
878
                                                                                                                                                                                                                                                                                                                                                                    AX775945
Sequence
AX775945
                                                                                                                                                                                                                                                                                                                             Homo sapiens (human)
                                                                                                                                                                                                                                            NF-kB activating gene
Patent: WO 03048202-A 215 12-JUN-2003;
Asahi Kasei Kabushiki Kaisha (JP)
                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                             Matsuda,A. and Muramatsu,S.
                                                                                                                                                                                                                                                                                                                                                           AX775945.1 GI:32693663
                                                                                                                                                                                                                                                                                                 Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /note="unnamed protein product"
/codon_start=1
/codon_start=1
/protein_id="CAE11672.1"
/protein_id="CAE11672.1"
/protein_id="AE93664"
/db_xref="01:33693664"
/translation="MDVVEVAGSWWAQEREDIIMKYEKGHRAGLPEDKGPKPFRSYNN
NVDHLGIVHETELPPLTAREAKQIRREISRKSKWVDMLGDWEKYKSSRKLIDRAYKGM
NWOHLGIVHETELPPLTAREAKQIRREISRKSKWVDMLGDWEKYKSSRKLIFFR
DRYGTKQRELLHILLAYESYNDEVGYCRDLSHIAALFLLYLPEBDAFWALVQLLASSR
PMNIRGPMSVLLNILAYESYNDEVGYCRDLSHIAALFLLYLPEBDAFWALVQLLASSR
HSLQGFHSPNGGTVQGLQDQQEHVVATSQPKTWGHQDKKDLCGQCSPLGCLIRILIDG
ISLGITTLRLMDVYLVEGEQALMPITRIAFKVQQKRLTKTSRCGPWARFCNRFVDTWAR
DEDTYVLKHLAASMKKLTRKQGDLPPPAKPEQGSSASRPVPASRGGKTLCKGBQAPPG
PPARFPRPIWSASPPRAPRSSTPCPGGAVREDTYPVGTQGVPSPALAQGGPQGSWRFL
QWMSMPRLFTDLDUGGPWFRHYDFRQSCWVRAISQEDQLAPCWQAEHPAERVRSAFAA
OMNSMPRLFTDLDUGGPWFRHYDFRQSCWVRAISQEDQLAPCWQAEHPAERVRSAFAA
                                                                                                                                                                                                                                                                                                                                                                                215 from Patent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7 41266
7 4207
7 4207
7 158698
7 163629
7 193646
6 134506
6 134506
6 134506
6 134506
6 134506
1 140152
1 140152
1 140243
1 180876
1 180876
206040
36160
                                                                                                                                                                                       /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8201
123925
192881
37757
                                          PSTDSDQGTPFRARDEQPCAPTSGPCLCGLHLESSQFPPGF"
                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                    .1650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7878
7878
7971
8491
8201
   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AC003976
AC067923
AC139091
AC139091
AC144840
AC146840
AC146840
AC146840
AC139367
AC139367
AC139367
AC139367
AC139367
AC131056
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            176205
AX774956
HSTRE213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX332512
HSTRE210
AY143550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HSM807865
  Score 1964;
Pred. No. 0;
                                                                                                                                                                                                                                                                                                                                                                                         1964 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                           ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                WO03048202.
                                                                                                                                                                                                                                                                                                                                                                                         mRNA
            DB
            6
            Length 1964
                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AC003976 Homo sapi

AC039931 Homo sapi

AC139937 Homo sapi

AC139937 Homo sapi

AC139176 Homo sapi

AC148840 Homo sapi

AC036181 Homo sapi

AC036181 Homo sapi

AC139367 Homo sapi

AC139367 Homo sapi

AC139361 Homo sapi

AC139361 Homo sapi

AC131056 Homo sapi

AC131056 Homo sapi

AC131051 Homo sapi

AC027821 Homo sapi

AC027821 Homo sapi

AC023117 Homo sapi

AC031317 Homo sapi

AC031317 Homo sapi

AC033814 Homo sapi

AC033814 Homo sapi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AX332512 Sequence
X63546 H.sapiens m
AY143550 Homo sapi
BX647719 Homo sapi
I76205 Sequence 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            176205 Sequence 9
AX774956 Sequence
X63547 H. sapiens m
                                                                                                                                                                                                                                                                                                                                                                                         PAT 14-JUL-2003
```

8 8 8 8	B	Z T
901 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACACGTCCAGGTGTGGCCCG 960	1 ATTGANCETTGETAGAGETTCGCGGGGCTCATTGTGGGCTACAAAAGAGCAAAAAGAGCAAAAAGGCTTTTCGAT 1 ATTGANCETTGATAAAAGGSACACCGACCTGGGCTCCCAGAGGACAAAAGGCGAAAAGGCAAAAGGCACTTTTCGAT 1 AAATTACGAAAAAGGSACACCGAACTGGGCTCCAGAGGACAAAAGGCGAAAAGGCACTTTTCGAT 1 AAATTACGAAAAAGGSACACCGAACTGGGCTCCAGAGGACAAAAGGCGCTAACCCTTTTCGAT 1 AAATTACGAAAAAGGSACACCGAACTGGGCTCATTTGGGAATTGTACATGAGAGGGCCTAACCCTTTTCGAT 1 AAATTACGAAAAAGGSACACCGAACTGGACTATTTGGGGAATTGTACATGAGAGGGCCTAACCCTTTTCCAT 1 AAATTACGAAAAAGGSACACCGAACTGGACAATTTGGGGAATTGTACATGAGAGGGCCTAACCCTTTTCCAT 1 AAATTACGAACAACCACCGACAAATTTCGGGGAAATTGAACAAAAGGCAAAAAGGCAAAAGGCAAAAGGCAAAAGGCAAAAGGCAAAAGGCAAAAGGCAAAAGGCAAAAGGCAAAAGGCAAAATTCGAGCGGAAAAAAGCAAAAGGCAAAAAGGCAAAAGGCAAAAAGGCAAAAAA	Conservative O: Mismatches O: Indels O
RESULT 2 AF540953 AF540953 AF540953 DEFINITION Homo sapiens Rab GTPase-activating protein PRC17 (PRC17) mRNA, CCESSION AF540953.1 GI:23452664 VERSION AF540953.1 GI:23452664 KEYWORDS SOURCE ORGANISM Homo sapiens (human) Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	1081 GCCAMACCCCAGCACAGGATCCCAGCCTTCAGCCTTCAGCCTTCAGCCTCCAGCCTCCAGCCTCCAGCCTCCAGCCTCCAGCCTCCAGCCTCCAGCCTCCAGCCTCCAGCCTCCAGCCCCGCCCCCCCC	

8 B

음 성

B & B & B &

밁

8 8 8

음 성

음 성

망

음 성

음 성

유 성 유

B & B & B

```
밁
                                                                                                                                                                        δ
                                                                                                                                                                                                          밁
                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
    S
                               밁
                                                      S
                                                                                         밁
                                                                                                                ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 1964; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
      421
                                 361
                                                            361
                                                                                                                     301
                                                                                                                                                   241
                                                                                                                                                                              241
                                                                                                                                                                                                           181
                                                                                                                                                                                                                                      181
                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pei,L., Peng,Y., Ling,X.B., van Eyndhoven,W.G., Rubin,M., Hoey,T., Powers,S. and Li,J.

PRC17, a novel oncogene encoding a Rab GTPase-ac is amplified in prostate cancer.

Cancer Res. (2002) In press
2 (bases 1 to 1964)
Li,J.L., Peng,Y. and Powers,S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Submitted (23-AUG-2002) Genomics,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Li,J.L., Peng,Y.
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mammalia; Eutheria; Euarchontoglires;
                                                                                                                                                                                                                                                                                                                                            AAATACGAAAAGGGACACCGAGCTGGGGTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
    CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                          GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                ATGCTGGGAGACTGGGAGAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                     ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGGGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (bases 1 to 1964)
                               AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                        ATGCTGGGAGACTGGGAGAATACAAAAGCAGCAGCAGAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                  AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                          AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                       ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ŗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /translation="mdvvevagswwaqered1|mkyekghraglpedkgpkpfrsynn nvdhlgivhefelpflareakgiresekskrlidraykgm prniirgprwsvlnielpflareakgiresekskrlidraykgm prniirgprwsvllniebrykgm prniirgprwsvllniebrykgmiresekskrksekijdripkdysgtlrkifer drygtkgrellhillayebryngygygdlshialehiplerkgylgedgririiridg islgiltriwdyldegqapegyvatsgpktwghgdkkdlcgocsplgcliriidg islgiltriwdylvegegalmpitrlafkyggkydgpkghgyggpkllragggyngytvegegalkeritriskgpwarecurfydtwar dedtylheragwkkltrkgdbpppkkpeggsskrrpaskgggkytlckgdbgappg ppatpeggsskrpipharegggyswrfilgwnsmprlptdldvegpwfrhydfrgscwyraisgedqlapcwgaehpaervrsafaa pstdsdogtpfrardbgpcaptsgcfclcglhlessgcfppgf"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Greenlawn, NY 11740, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /gene="PRC17"
/codon_start=1
/product="Rab GTPase-activating
/protein_id="AAN33117.1"
/db_xref="GI:23452665"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene="PRC17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/chromosome="17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   map="17q11"
                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; 50
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             .1650
                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 1964;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tularik,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTPase-activating protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Inc,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nguyen, K.C.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRC17"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ×
                                                                                                                                                                                                                                                                                                                                                                                                                                              0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pulaski
                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Road
    480
                                                                                         360
                                                                                                                                                 300
                                                                                                                                                                             300
                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                  180
                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                            120
                                                                                                                                                                                                                                                                                                                                                       120
                                                                                                                                                                                                                                                                                                                                                                                     60
                               420
                                                            420
                                                                                                                     360
                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                S
                                             밁
                                                                    S
                                                                                                     밁
                                                                                                                           S
                                                                                                                                                              밁
                                                                                                                                                                                      5
                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
                                                                                                    1381
                                                                                                                                                                                                                                                                                                                                         1141
                                                                                                                                                                                                                                                                                                                                                                     1141
                  1501
                                                                                                                                 1381
                                                                                                                                                               1321
                                                                                                                                                                                          1321
                                                                                                                                                                                                                       1261
                                                                                                                                                                                                                                                   1261
                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                            1201
                                                                                                                                                                                                                                                                                                                                                                                                                                1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                      GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                        GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                    GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                 CGTGCCATATCCCAGGAGGACCAGCTGGCCGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG 1500
                                                                                                     GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                       GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                               ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                         ACCCTCTGCAAGGGGGACAGGCCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCGCGGCCC
                                                                                                                                                                                                                                                                                                                                                        ACCCTCTGCAAGGGGACAGGCAGGCCCCCCCCACCAGCCCGGTTCCCGGGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                   GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATGTGGTAGCCACGTCACAACCCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGAGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATCGATACGGAACCAAGCAGCAGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                               1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1080
                                                                                                                                 1440
                                                                                                                                                                                          1380
                                                                                                                                                                                                                       1320
                                                                                                                                                                                                                                                   1320
                                                                                                                                                                                                                                                                                1260
                                                                                                                                                                                                                                                                                                            1260
                                                                                                                                                                                                                                                                                                                                         1200
                                                                                                                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1020
                                                                                                                                                              1380
                                                                                                                                                                                                                                                                                                                                                                      1200
                                                                                                                                                                                                                                                                                                                                                                                                                              1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
```

Query Best Match	ORIGIN	gou CDS	REFERENCE AUTHORS TITLE JOURNAL	LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM	Qy Db RESULT 3 AX775947	D	B & B &	8 8 8 B
Query Match 99.9%; Score 1962.4; DB 6; Length 1964; Best Local Similarity 99.9%; Pred. No. 0; Matches 1963; Conservative 0; Mismatches 1; Indels 0; Gaps 0;		rce	Mammalla; Eutherla; Hominidae; Homo. 1 1 Matsuda, A. and Muran MF-kB activating gen NF-kB activating gen Patent: WO 03048202. Asahi Kasei Kabushih Location/Q	AX775947 1964 bp mRNA linear PAT 14-JUL-2003 Sequence 217 from Patent WO03048202. ON AX775947 AX775947.1 GI:32693665 S Homo sapiens (human) IISM Homo sapiens (human) Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;	1921 ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG 1964 	1801 AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCAGGCCCCACGAC 1860	1681 AATTTCCCTAGGCTTAACAACCCAAGCATCGCGTCCTCGTTTATTTTTGGTTAAA 1740	1501 CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA 1560 1561 GCTAGGGACGACCAGCGTGTGCTCCCACCTCAGGGCCTTGCGCTCCACCTTG 1620
) B & B & B &	Q Q QQ	B & B &	5 8 8 8	B & B &	}	5 8 8 8	Q B Q B Q
1021 ANGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCAACCCCCA 1080	841 CTCACCCTGCGGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA 900	721 CATGTGGTAGCCACGTCACCCAAGACCATGGGGCATCAGGACAAGATCTATGT 780 [თ თ თ თ	481 GATCGATACGGAACCAAGCACGGACTACTCACCACATCCTCCTCGCATATCAGGACTAT	361 AAGTTGAAAACCCCGGAAGATCATCATGAAGGAGAAGGCATATATTCTTCAGG 421 CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG			–

```
RESULT 4
BC071680
                                                    ACCESSION
VERSION
KEYWORDS
                                                                                                                      LOCUS
                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                         DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                              ORGANISM
                                                                                                                                                                                                                                          1861
                                                                                                                                                                                                                                                                                                                                                 1741
                                                                                                                                                                                                                                                                                                                                                                                                     1681
                                                                                                                                                                                      1921
                                                                                                                                                                                                               1921
                                                                                                                                                                                                                                                                   1861
                                                                                                                                                                                                                                                                                             1801
                                                                                                                                                                                                                                                                                                                      1801
                                                                                                                                                                                                                                                                                                                                                                                                                             1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1141
                                                  2090 bp
Homo sapiens TBC1 domain family,
MGC:87891 IMAGE:5165385), complet
BC071680
BC071680.1 GI:47939522
MGC.
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                           Homo sapiens
                                       Homo sapiens (human)
                                                                                                                                                                                                                                                       CATCGTTCTGAATTCTGACGACACCGTGAGGCCTGCCTTTGTACTTTTAAACTCATGGAAGG
                                                                                                                                                                                     ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                                                                                                                                                 ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG 1964
                                                                                                                                                                                                                                     CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                         AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCCACGAC
                                                                                                                                                                                                                                                                                                                                                               AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAAGTTCTCAGTTCCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTAGGGACGACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                          AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGCCCACGAC
                                                                                                                                                                                                                                                                                                                                              CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGTTCAGAGATGGAACACACC
                                                                                                                                                                                                                                                                                                                                                                                                 AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGGCCCTGGCTCAG 1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACCCTCTGCAAGGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCGCGGCCC
                                                                                           complete
                                                                                                     mRNA
member 3,
                                                                                                      linear PRI 08-MAR-2005 mRNA (cDNA clone
                                                                                                                                                                                                                                                                  1920
                                                                                                                                                                                                                                                                                                                   1860
                                                                                                                                                                                                                                                                                                                                                                        1800
                                                                                                                                                                                                                                       1920
                                                                                                                                                                                                                                                                                          1860
                                                                                                                                                                                                                                                                                                                                              1800
                                                                                                                                                                                                                                                                                                                                                                                                   1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1380
                                                                                                                                                                                                                                                                                                                                                                                                                             1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                     1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              JOURNAL
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CONSRIM
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AUTHORS
                                                                                                                                                                                                gene
                                                                                                                                 CDS
                                                                                                                                                                                                                                                                                                                    source
```

```
Hominidae; Homo.

El (bases 1 to 2090)

Strausberg RI, Feingold EA, Grouse LH, Derge JG, Klausner RD, Collins FS, Wagner L, Shenmen CM, Schuler GD, Altschul SF, Zeeberg B, Buetow KH, Schaefer CF, Bhat NK, Hopkins RF, Jordan H, Moore T, Max SI, Wang J, Hsieh F, Diatchenko L, Warusina K, Farmer AA, Rubin GM, Hong L, Stapleton M, Soares MB, Bonaldo MF, Casavant TL, Scheetz TE, Brownstein MJ, Usdin TB, Toshiyuki S, Carninci P, Prange C, Raha SS, Loquellano NA, Peters GJ, Abramson RD, Mullahy SJ, Bosak SA, McEwan PJ, McKernan KJ, Malek JA, Gunaratne PH, SJ, Bosak SA, McEwan PJ, McKernan KJ, Malek JA, Gunaratne PH, Sichards S, Worley KC, Hale S, Garcia AM, Gay LJ, Hulyk SW, Villalon DK, Muzny DM, Sodergren EJ, Lu X, Gibbs RA, Fahey J, Helton E, Ketteman M, Madan A, Rodrigues S, Sanchez A, Whiting M, Madan A, Young AC, Shevchenko Y, Bouffard GG, Blakeeley RW, Touchman JW, Green ED, Dickson MC, Rodriguez AC, Grimwood J, Schmutz J, Myers RM, Butterfield YS, Krzywinski MI, Skalska U, Smallus DE, Schnerch A, Schein JE, Jones SJ and Marra MA.

TM Mammalian Gene Collection Program Team
Generation and initial analysis of more than 15,000 full-length human and monse cnNA sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 166 Row: g Column: 13
This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 14149984.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
DNA Sequencing by: Sequencing Group at the Stanford Human
Center, Stanford University School of Medicine, Stanford,
Web site: http://www-shgc.stanford.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 (bases 1 to 2090)
Director MGC Project.
Direct Submission
Submitted (01-JUN-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Gene Collection (MGC), Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dickson, M.,
                                                                                                                                                                                                                                                                                                                                                                                           /gene="TBClD3"
/note="synonyms: PRC17, T
/db_xref="GeneID:84218"
/db_xref="MIM:607741"
,01. .1750
/gene="TBC1D3"
/codon_start=1
/codon_start=1
/product="TBC1 domain family, member 3"
/product="TBC1 domain family, member 3"
/product="TBC1 domain family, member 3"
/protein_id="AH71680.1"
/db_xref="G1:47939523"
/db_xref="GeneID:84218"
/db_xref="GeneID:84218"
/db_xref="MIN:607741"
/translation="MDVVEVACSWWAQEREDIIMKYEKGHRAGLPEDKGPKPFRSYNN
NVDHLGIVHETELPPLTAREAKQIRREISRKSKWVDMLGDWEKYKSSRKLIDRAYKGM
PMNIRGPMWSVLLNIEEMKLKNPGRYQIMKEKGKRSSEHIQRIDRDISGTLRKHMFFR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /mol_type="mRNA"
/db xref="taxon:9606"
/clone="MGC:87891 IMAGE:5165385"
/tissue type="Brain, adult medulla"
/clone_lib="NIH_MGC_119"
/lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         http://www-shgc.stanford.edu
(Dickson, Mark) mcd@paxil.stanford.edu
M., Schmutz, J., Grimwood, J., Rodriquez,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  .2090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Α.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genome
CA 943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Myers,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 94305
```

DRYGTKQRELLHILLAYEEYNPEVGYCRDLSHIAALFLLYLPEEDAFWALVQLLASER HSLQGFHSPNGGTVQGLQDQQEHVVATSOPKTWCHQDKKDLCGQCSPLGCLIRILIDG ISLGLTLRLWDYLVEGEQALMPITRIAFKVQQKKLTKTSRCGFWARFCNRFVDTWAR DEDTVLKHLRASMKKLTRKQGDLPEPAKPEQGSSASRFVPASRGGKTLKGDRQAPFG PPARFPRPIWSASPFRAPRSSTPCPGGAVREDTYPVGTQGVPSPALAQGGPQGSWRFFL

 TATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA 1000	. crcacccrececcrereeacere	Db 941	
CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA 900	. CTCACCCTGCGCCTGTGGGACGTG	Qy 841	
GGGCAGTGTTCCCCGTTAGGCTGCCTCATCCGGATATTGATTG	GGGCAGTGTTCCCCGTTAGGCTGC	Db 881	
CTCATCCGGATATTGATTGACGGGATCTCTCTCGGG 840		Оу 781	
CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAAGA	CATGTGGTAGCCACGTCACAACCC	Db 821	
 AAGACCATGGGGCATCAGGACAAGAAAGATCTATGT 780	. CATGTGGTAGCCACGTCACAACCC	Оу 721	
GGGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG 820	CTGCAGGGATTTCACAGCCCAAAT	Db 761	
CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG 720		Qy 661	
 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC 760		Db 701	
GCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC 660		Qy 601	
AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT 700		Db 641	
GACCTGAGCCACATCGCCCCCTTGTTCCTCCTCTAT 600		Qy 541	
GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 640	GATCGATACGGAACCAAGCAGCGG	Db 581	
 GAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 540		Qy 481	
ATAAGCGGGACATTAAGGAAGCATATGTTCTTCAGG 580		Db 521	
CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG 480		Qy 421	
AAGTTGAAAAAACCCCGGAAGATACCAGATCATGAAGGAGGAAGGGCAAGAGGTCATCTGAG 520	AAGTTGAAAAACCCCGGAAGATAC	Db 461	
 CAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG 420		Оу 361	
GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG 460		Db 401	
CCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG 360		Оу 301	
AAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG 400		Db 341	
ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG 300		Qy 241	
ACTGCGCGGGAGGCGAAACTACGGCGGGAGATCAGCCGAAAGAGCAAGTGGGTGG		Db 281	
 CGGCGGAGATCAGCCGAAAGAGCAAGTGGGTGGAT 240		Qy 181	
 AGCTACAACAACCACCATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG 280		Db 221	
TTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG 180		Qy 121	
 GGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA 220		Db 161	
AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTTAAGCCTTTTCGA 120		Qy 61	
ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG 160		Db 101	
AGTTGGTGGGCACAAGAGGGAGAGGACATCATTATG 60		Qy 1	
 Score 1952.8; DB 8; Length 2090; Pred. No. 0; 0; Mismatches 7; Indels 0; Gaps 0;	99.4%; imilarity 99.6%; '; Conservative	Query Match Best Local S Matches 1957	
 QCAPTSGPCLCGLHLESSQFPPGF"	PSTDSDQGTPFRARDEQ	ORIGIN	
 QWNSMPRLPTDLDVEGPWFRHYDFRQSCWVRAISQEDQLAPCWQAEHPAERVRSAFAA	QWNSMPRLPTDLDVEGP		

<i>§</i>	용 &	당 성	Db Qy	B &	g <i>Q</i>	g 49	g Q	gg Qy	B 8	gg Qy	g Q	Query Match Best Local Si Matches 1954;	ORIGIN	JOURNAL FEATURES SOURCE	REFERENCE AUTHORS TITLE	SOURCE ORGANISM	AXOB6847 LOCUS DEFINITION ACCESSION VERSION KEYWORDS	
61 CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAG 72	7 6	541 AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT 600	481 GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 540	421 CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG 480	361 AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG 420 	301 GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG 360	241 ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG 300 	181 ACTGCGCGGGAGGCGAAGCAAATTCGGCGGGAGATCAGCCGAAAGAGCAAGTGGGTGG	121 AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG 180	61 AAATACGAAAAGGGACACCGAGCTGGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA 120	AGAGGTCGCGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG 60	Match 99.2%; Score 1948; DB 6; Length 2072; socal Similarity 99.5%; Pred. No. 0; social similarity 99.5%; Pred. No. 0; social similarity 99.5%; Conservative 0; Mismatches 10; Indels 0; Gaps 0;	/db/ /mc/ /mc/	Patent German	Nomentage; nomb. 1 Wiemann,S. Human dna seguences	_	AX086847 2072 bp DNA linear PAT 09-MAR-2001 7 Sequence 799 from Patent WO0112659. AX086847 AX086847.1 GI:13276047	
Ş	gg Qy	р <i>Q</i>	B 5	\$ & &	g dg	g g	D Q	B 5	;	S B 8	ρ Qγ	Db Qy	Qy Db	Qy db	B 8	₽ Q2	рь Qy рь	
1741 CTTATGAAAATGTATTAAGAAAAGAGTGCAGCTCGAGAGAGA	1681 AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA 1740 	1621 GAAAGTICTCAGTICCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT 1680	CLAWGEANCHARCHGE CLAWACLICAGE CLAWACLICAGE	GGGTTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA	CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG	1381 GACCTGGACGTAGAGGCCCTTGGTTCCGCCATTATGATTTCAGACAGA	GAAGGACCTCAGGTTCCTGGAATTCCTGCAGTGATGAATTCCATGCCCGCCTCCCAACG [GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG	######################################	ACCTIONGLAGGGGGACAGGCAGCCCTCCAGGCCCACCAGCCCGGTTCCCGGGGCCCGGTTCCCGGGGCCCCGGTTCCCGGGGCCCCGGTTCCCGGGGCCCCGGTTCCCGGGGCCCCCC	081 GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG	1021 AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA 1080	961 TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC 1020 	901 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG 960 	841 CTCACCCIGGGCCIGIGGGACGIGIAICIGGIAGACGCGAACAGGCGIIGAIGCCGAIA 900	GGGCAGTGTTCCCCGTTAGGCTGCCTCATCCGGATATTGATTG	759 CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCACAGAG 818 721 CATGTGGTAGCCACGGCACAACCCAAGACCATGAGCCATCAGGACAAGAAAGA	

```
JOURNAL
PUBMED
REFERENCE
AUTHORS
CONSRTM
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 6
BC075809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ર્ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                   COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CONSRIM
TITLE
                                                                                                                                                                                                                                                                                                                                       REMARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Strausberg, L. L. Peingold, E.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J.,
Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,
Fahey, J., Helton, E., Ketteman, M., Madan, A., C., Shevchenko, Y.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.

Mammalian Gene Collection Program Team
Genezation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
L Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1839
                                                                                              Contact:
Dickson,
                                                                                                                                        Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies, Inc.
CDNA Library Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Sequencing Group at the Stanford Human
Center, Stanford University School of Medicine, Stanford,
Web site: http://www-shgc.stanford.edu
Clone distribution: MGC clone distribution information can be fo through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov
                                                                                                                                                                                                                                                                                                              Submitted (06-JUL-2004) National Institutes of Health, Mammalian Gene Collection (MGC), Bethesda, MD 20892-2590, USA NIH-MGC Project URL: http://mgc.nci.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2166 bp mRNA
Homo sapiens TBC1 domain family, member 3B,
MGC:87892 IMAGE:5170064), complete cds.
BC075809
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BC075809
BC075809.1 GI:49902676
MGC.
                                                                                                                                                                                                                                                                                                                                                                                                               Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hominidae; Homo.
1 (bases 1 to 2166)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGACCCCAGATCACAAAGCCAACCATGCCCCAGCCCCTCCCAGCACCCCCCAGGACCCCCACGAC 1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATAACCACCTTCATGTTTTGAAATAAATGTTTCCTGTTGAAATG 2062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCGTTCTGAATTCTGACGACACCGTGAGCCTTCGTACTTCAAACTCATGGAAGG 2018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCCCAGCCCCCAGCCCCACGAC 1958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGTTCAGAGATGGAACACACC 1898
                                                                                                                                                                                                                                                                                                                                                                                                                                     MGC Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    bases 1 to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                (Dickson, Mark) mcd@paxil.stanford.edu
f., Schmutz, J., Grimwood, J., Rodriquez,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear PRI 17-M
mRNA (cDNA clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1964
                                                                                                ?
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRI 17-MAY-2005
                                                                                                   and
                                                                                                                                                                      1 Genome
, CA 94305
                                                                                                   Myers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1920
                                                                                                                                               밁
                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
    S
                                                    밁
                                                                                    S
                                                                                                                                                                                         á
                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 1946;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                                                                                                                                  507
                                                                                                                                                                                              361
                                                                                                                                                                                                                                             447
                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                            387
                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                       327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
    GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                    CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                         AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                              GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                           ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGGACGTGGTAGAGGTCGCGGGTAGTTGGTGGGCACAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGGACATCATTATG
                                                                                                                                                    AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                            ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
```

98.6%; 99.2%;

Score 1936.4; Pred. No. 0; 0; Mismatches

BB 16;

8;

Length

<u>.</u>

Gaps

0

120

206 60

180

266

300

386 240 326

446

566

420 506

540 626 480 0,

```
This clone was selected for full length sequencing passed the following selection criteria: matched matched tocation/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Series: IRAK Plate: 166 Row: h Column:
This clone was selected for full length
                     /protein_id="AAH75809.1"
//db_xref="GI:49902677"
//db_xref="GI:49902677"
//db_xref="GI:49902677"
//db_xref="GI:4059"
//db_xref="GI:4059"
//tanslation="MOVVEVAGSWAAQEREDIIMKYEKGHRAGLPEDKGPKPFRSYNN
NUDHLGIUHETELPLTAREAKQIRREISRKSKWUDMLGDWEKYKSSRKLIDRAYKGM
NUDHLGIUHETELPLTAREAKQIRREISRKSKWUDMLGDWEKYKSSRKLIDRAYKGM
PMNIRGPMSVLLNIEEMKLKNPGRYQIMKEKGKRSSEHIQRIDDISGTLRRHMFFR
PMNIRGPMSVLLNILAYESKYNPEVGYCRDLSHIAALFLLYLPEBDAFWALVQLLASSR
PKYGTKQRELLHILLAYESKYNPEVGYCRDLSHIAALFLLYLPEBDAFWALVQLLASSR
HSLQGFHSPNGGTVQGLQDQQEHVVATSQSKTMGHQDKKDLCGQCSPLGCLIRILIDR
HSLQGFHSPNGGTVQGLQDQQEHVVATSQSKTMGHQDKKDLCGQCSPLGCLIRILIDR
ISLGITTRLMDVYLVEGEQALMPITRIAFKYQQKRLTKYSRCGPWARFCCRNFFDTWAR
DDTVVLKHLRASMKUTRKQDSLPPAKPEQGSSSRFVPASRGGKTLCKGDRQAPPG
PPARPFNFNGTSGEQGAUPETSCROTCTHFSCGOTGAPENGARPAR
DDTVLKHLRASMKUTRKQBULPPAKPGGSTSTPCPGGAVREDTYPVGTQGVPSPALAQGGPQGSWRFL
QMMSMPRLFTDLDVEGPWFRHYDFRQSCWVRAISQEDQLAPCWQAEHPAERVRSAFAA
DDTVTSTPEPANDEGGAUPETSCROTCTHFSCGOTGAPETG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /mol type="mRNA"
/db_xref="taxon:9606"
/clone="MGC:87892 IMAGE:5170064"
/tissue type="Brain, adult medul.
/clone_lib="NIH_MGC_119"
PGTDSDQGTPFRARDEQQCAPTSGPCLCGLHLESSQFPPGF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                      /codon_start=1
/product="TBC1 domain family,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene="TBC1D3B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene="TBC1D3B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           note="Vector:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     organism="Homo sapiens"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            because
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           91:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  e it
14149984
```

```
1527
                                                                                                                                                                     1467
                                                                                                                                                                                       1321
                                                                                                                                                                                                               1407
               1561
                                    1647
                                                                              1587
                                                                                                    1441
                                                                                                                                             1381
                                                                                                                                                                                                                                    1261
                                                                                                                                                                                                                                                        1347
                                                                                                                                                                                                                                                                              1201
                                                                                                                                                                                                                                                                                                    1287
                                                                                                                                                                                                                                                                                                                          1141
                                                                                                                                                                                                                                                                                                                                               1227
                                                                                                                                                                                                                                                                                                                                                                    1081
                                                                                                                                                                                                                                                                                                                                                                                          1167
                                                                                                                                                                                                                                                                                                                                                                                                                1021
                                                                                                                                                                                                                                                                                                                                                                                                                                     1107
                                                         1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                           961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    901
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               867
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                687
GCTAGGGACGAACAGCCGTGTGCCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                             GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                         GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                           CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                       ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                             GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                          GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGGCACCCCCTTCAGA
                                                                                                                                                                   GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                       ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGGCT
                                                                                                                                                                                                                                                                                                                ACCCTCTGCAAGGGGGACAGGCCAGGCCCACCAGCCCGGTTCCCGGGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                        AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                      AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGGACCTGCCACCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGAAGATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATGTGGTAGCCACGTCACAATCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1046
                                   1706
                                                         1560
                                                                                                                                                                                                                                                                                                                                                                                        1226
                                                                                                                                                                                                                                                                                                                                                                                                              1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1106
                                                                              1646
                                                                                                  1500
                                                                                                                                             1440
                                                                                                                                                                                       1380
                                                                                                                                                                                                             1466
                                                                                                                                                                                                                                   1320
                                                                                                                                                                                                                                                                                                    1346
             1620
                                                                                                                         1586
                                                                                                                                                                   1526
                                                                                                                                                                                                                                                       1406
                                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                                                                                                                        1200
                                                                                                                                                                                                                                                                                                                                             1286
                                                                                                                                                                                                                                                                                                                                                                   1140
                                                                                                                                                                                                                                                                                                                                                                                                                                    1166
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               720
                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                            AX775943
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                             Ś
             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                      Query Match
Best Local Similarity
Matches 1937; Conserv
                                                                                                                                                                                                                                                        CDS
                                                                                                                                                                                                                                                                                                    source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1707
              362
                                   μ
              ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                         ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGGACATCATTATG
```

ঠ 🖁 ঠ

22;

Gaps

421 60

δ 밁 밁

ঠ 🖁 ঠ

8 8 8 8

음 성 밁 र् 밁 ઈ 밁 S 밁 ঠ 음 성

밁 र् 밁 **8** &

δ

음 성 밁 S

```
AX775943
Sequence 213
AX775943
AX775943.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matsuda,A. and Muramatsu,S. NF-kB activating gene Patent: WO 03048202-A 213 1 Asahi Kasei Kabushiki Kaish
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               fominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAAAGTTCTCAGTTCCCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGACCCCAGATCACAAAGCCAAGCCATGCCCAGCCCCCAGCCAAGCCCCAACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTATGAATATGTATTAAGAAAGAGTGCAGCTTGAGAGACATTCAGAGATGGAACACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCTAGGGACGAACAGCAGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
  96.8%;
nilarity 98.6%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                /codon_start=1
/protein_id="CAB11671.1"
/brotein_id="CAB11671.1"
/db_xref="gi=32893662"
/db_xref="gi=32893662"
/translation="mdvvevagswwaqerediimkyekghraglpedkgpkpfrsynn
/translation="mdvvevagswwaqerediimkyekgyrkgsrki.tdraykgn
NVDHLGIVHETELPPLTARBAKQIRREISRKSKRVDMLGDWEKYKSSRKI.TDRAVKGN
PMNIRGPMWSVLLMTEEMKLKNPGRYQENDLSHTAALFLLYLPEBDADAFWALVQLLASER
DRYGTKQRELLHILLAYEEYNPEVGYCRDLSHTAALFLLYLPEBDAFWALVQLLASER
HSLQGFHSPNGGTVQGLQDQQEHVVATSQPKTMGHQDKKDLCGQCSPLGCLIRILIDG
ISLGLTLRLMDVYLVBGEQALMPITRIAFKVQOKLTKTSRCGFWARFCNRFVDTWAR
DEDTVLKHLRASMKKLTRKQGDLPPPAKPEQGSSASRPVPASRGGKTLCKGDRQAPPG
PFGQLPRGHLVLPHPVLVGLSGKTPTLWALRVCPARPWLREDLRVPGDSCSGTPCPA
SQRTWT"
                                                                                                                                                                                                                                                                                                                                                        /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
362...1732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         213 from
                                                                                                                                                                                                                                                                                                                                       /note="unnamed protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                          O 03048202-A 213 12-JUN-2003;
ei Kabushiki Kaisha (JP)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GI:32693661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent
; Score 1902; D; Pred. No. 0; 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chordata; Craniata; Vertebrata; Eutelec Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2304 bp
WO03048202
                                                                                                                                                                                                                                                                                                                                       product"
                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mRNA
                                        6
                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1826
```

, & & &	g Qy	D	д Q	ορ	D Qy	gg Qy	B 8	g &	B &	gb gb	g Qy	B 8	р 9	g Qy	B 8	용 성	유 성
1081 GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG 1140	1021 AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA 1080 	961 TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC 1020	901 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG 960 	841 CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA 900	781 GGGCAGTGTTCCCCGTTAGGCTGCCTCATCCGGATATTGATTG	721 CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT 780	661 CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGTTCCAAGACCAACAGGAG 720	601 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGCCAGTGAGAGGCACTCC 660	541 AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT 600	481 GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT 540	2 1	361 AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG 420	301 GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG 360 	241 ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAAGCTCATAGATCGAGCGTACAAG 300	81	121 AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG 180	61 AAATACGAAAAGGGACACGAGCTGGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA 120
REFERENCE AUTHORS TITLE JOURNAL	ORGANIS	ACCESSION VERSION KEYWORDS	RESULT 8 AX775941 LOCUS DEFINITION	Db	ov D	8 B 8	S B 1	δ β ί	S B 4	S & &	9 dg 99	מם פע	מם מ	g &	\$ B &	B 8) Db
	Homo Bablens (numan) SM Homo Bablens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae; Homo.	AX775941.1 GI:32693659	AX775941 2304 bp mRNA linear PAT 14-JUL-2003 DN Sequence 211 from Patent WO03048202.						ATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA	1551 GARAGERICHANCHOCCHICICELCCACCU CAMPAGELIGECTICH CONTROLL 1680 1680 1680 1680 1680 1680 1680 1680	501 CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCCACCCCTTCAGA		381 GACCIGGACGIAGAGGGCCCIIGGGICCCCATTAIGAII CAGACAGAGCIGCIGGGCCCCCCCCCCCCCCCC	GRANGARCE CANGOS I C CINGANATI CCINCANJUSTANCI CCANGUSTANCI CCANGUSTANCI CON CONTROL C		201 ATTIGGTCAGCTICCCCGCCACGGGACCCCGTTCTTCCACACCCTGTCCTGGGGGGGCT	

Db 962 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTG Oy 661 CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAG	Qy 541 AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATO	Oy 481 GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATC	421 782	361 722	Qy 301 GGAATGCCCATGAACATCCGGGGCCCGA:	Qy 241 ATGCTGGGAGACTGGGAGAAATACAAAAA	Qy 181 ACTGCGCGGAGGCGAAGCAAATTCGGCC	Qy 121 AGCTACAACAACAACGTCGATCATTTGGG	Qy 61 AAATACGAAAAGGGACACCGAGCTGGGCT 	1 362	Query Match 96.8%; Score 1900.4; Best Local Similarity 98.6%; Pred. No. 0; Matches 1936; Conservative 0; Mismatches	DEDTVLKHLRASMKKLTRKQGI PFGQLPRHGHLVLPHPVLVGL: SQRTWT"	PMNI RGPMSVLLINTEERIKLKO DRYGTKORELLHILLAYBEYNI HSLQGFHS PNGGTVQGLQDQQL ISLGLTLRIWDYYLVEGEOALI	/proteIn id="CAE11670.1 /db_xref="GI:32693660" /translation="MDVVEXAGO NUMBIGTURETER DETABLEAGO	/db_xref="taxon:9606" 3621732 /note="unnamed protein /codon shart=1	FEATURES Location/Qualifiers source 12304 /organism="Homo sapiens" /mol type="mRNA"
C 1021 G 720 G 1081	GCCGCCTTGTTCCTCCTCTAT 600	QY	G 480 G 841	ด—ด		TCGAGCGTACAAG TCGAGCGTACAAG	TGGGTGGAT	Qy AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG 180	APATACGAAAAGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA 120	GAGGACATTATG 60	Qy 900.4; DB 6; Length 2304; Db 6: Indels 22; Gaps 1:	DEDTVLKHLRASMKKLTRKQGDLQPPAKPEQGSSASRRVPASRGGKTLKKGDRQAPPG QY PFGQLPRHGHLVLPHPVLVGLSGKTPTLMALRVCPARPMLREDLRVPGDSCSGTPCPA SQRTWT" Db	PMNI RGPMWSTLLMTERMKLKNYGR VQ1MKEKGKRSSEHIQRI DRDVSGTLRKHI FER QY DRNYGTKQRELLHILLAYEEXNPEVGYCRDLSHI AALFILLYLPEEDAFWALVQLLASER DRYGTKQRELLHILLAYEEXNPEVGYCRDLSHI AALFILLYLPEEDAFWALVQLLASER DBHSLQGFHS PNGGTVQGLQDQQBHVVARSQ PKTWGHQDKKDLCGGCS PLGCLIR ILIDG DBHSLQGFHS PNGGTVQGLQDQABHVVARSQ PKTWGHQDKKDLCGGCS PLGCLIR ILIDG	proteIn_id="CAE11670.1" Qy db_xref="GI:32693660" translation="MDVVEVAGSWMAQEREDIIMKYEKGHRAGLPEDKGPKPFRSYNN Db	in product" Db	.ens" Qy
1741 CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGA		1561 1900 1621	1501 CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA	Y 1441 CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG 1500	Y 1381 GACCTGGACGTAGAGGGCCCTTGGTTCCGCCATTATGATTTCAGACAGA	Y 1321 GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG 1380	Y 1261 GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG 1320	Y 1201 ATTTGGTCAGCTTCCCCGCCACGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGGT 1260	1141 1502	1081 1442	Y 1021 AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGACCTGCCACCCCCA 1080	y 961 TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC 1020	y 901 ACAAGAATCGCCTTTAAGGTTCAGCAGAAACGCCCTCACGAAGACGTCCAGGTGTGGCCCG 960 	y 841 CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA 900 	y 781 GGGCAGTGTTCCCCGTTAGGCTGCCTCATCCGGATATTGATTG	y 721 CATGTGGTAGCCACGTCACAACCCAAGACCÁTGGGGCATCAGGACAAGAAAGATCTATGT 780

481 G 589 G	421 CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG 4	361 AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG 4 523 AAGTTGA	301 GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG	241 ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG	181 ACTGCGCGGGAGGCGAAGCAAATTCGGCGGGAGATCAGCCGAAAGAGCAAGTGGGTGG	Qy 121 AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTG 180	Qy 61 AAATACGAAAAGGGACACGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA 120	1 ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGACATCATTATG 60	Query Match 93.5%; Score 1836.4; DB 6; Length 2084; Best Local Similarity 96.9%; Pred. No. 0; Matches 1904: Conservative 0; Mismatches 6; Indels 54; Gaps 1;	FEALUKES LOCALINI/WHILLIELE 1. 2084 /organism="unknown" /mol_type="genomic DNA" ORIGIN	AUTHORS TRING, Y.Y., GOOGTICH, Y.W., ABBURL, Y. and DimandC, K.Y. TITLE Cathepain V-like polypoptides JOURNAL Patent: US 6783969-A 692 31-AUG-2004; Nuvelo, Inc., Sunnyvale, CA	Unknown. Unclassified. 1 (bases 1 to 2084)	ION AR578516 1 GI:56581312 N AR578516.1 GI:56581312 DS	AR578516 2	QY 1921 ATAACHACCTICACGITTIGAAATAAATGITTICCIGTTGAAATG 2903	1861 CATCGTTCTGAATTCTGACGACACCGTGACGTGACTTTGTACTT	
Oy 1561 GCTAGGGACGAACAGCCTGTGCTTGCCTAGGGCTTGCGGGCTCCACTTG 1620	01 CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCTTCAGA			21 GBAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG	Oy 1261 GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGGCCCGGCCCTGGCTCAG 1320	Db 1309 ATTTGGTCAGCTTCCCCGCCACGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT 1368	1141	1081 GCCAAACCCGAGCAACGGTCGTCGCGCTTGCCGGCTTCACCGTGGCGGAAG	Qy 1021 AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAACCAGGGGAACCTGCCACCCCCA 1080	Qy 961 TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC 1020	Qy 901 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG 960	Qy 841 CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA 900	Qy 781 GGGCAGTGTTCCCCGTTAGGCTGCTCATCCGGATATTGATGACGGGATCTCTCTC	Qy 721 CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAAGA	Oy 661 CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG 720	Qy 601 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGAGGCTGGCCAGTGAGAGGCACTCC 660	Qy 541 AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCTTGTTCCTCCTCTAT 600

301 GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG	Qy 241 ATGCTGGGAGACTGGGAGAAATACAAAAAGCAGCAGAAAAGCTCATAGATCGAGCGTACAAG 300	QY 181 ACTGCGCGGGAGGCGAAGCAAATTCGGCGGAGATCAGCCGAAAGAGCAAGTGGGTGG	QY 121 AGCTACAACAACATCGATCATTTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG 180	Qy 61 AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTTAAGCCTTTTCGA 120	1 ATGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG 60	Query Match 92.3%; Score 1812.4; DB 6; Length 2072; Best Local Similarity 96.3%; Pred. No. 0; Matches 1892; Conservative 0; Mismatches 6; Indels 66; Gaos 1;	rce	Cathepsin V-like polypeptides Patent: US 6783969-A 691 31-AUG-2004; Nuvelo, Inc.; Sunnyvale, CA Nuvelo, Location/Qualifiers	NISM NCE	AR\$78515 AR\$78515.1 GI:56581311 Inknown	RESULT 10 ARS78515 LOCUS ARS78515 ARS78515 ARS78515 DNA linear PAT 14-DEC-2004 DEFINITION Sequence 691 from patent US 6783969.	Db 2029 ATAACCACCTTCATGTTTTGAAATAATGTTTCCTGTTGAAATG 2072	1969 CATCGTTCTGAAGTCCGACACCGTGAGCCTGTGGAAGTCCATGGAAGG	THE CATEGETECTGARTENCE AND CONTROL TO THE CONTROL OF THE CATEGORY OF THE CATEG	1849 CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGA	1741 CTTATGAAAATGTATTAAGAAAGAGTGCAGCTCGAGAGAGA	Db 1729 GAAAGTTCTCAGTTCCCTAGGCTTCTAGAAGCATCTGGGCTCCTCGTTTTATTTTTGGTTAAA 1740 Oy 1681 AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTTCTTTTTTTT
Qy 1381 GACCTGGACGTAGAGGCCCTTGGTTCCGCCATTATCAGACAGA	Db 1417 GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGACGCTCCCAACG 1380	1261 GTCCGGGAAGACCCTACCCTGTGGGACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG	1201 ATTIGGTCAGCTICCCCGCCACGGGACCTCGTCCCACACCCTGTCCTGGGGGCTCTCTCCACACCCTGTCCTGGTGGGGCTCTCTCCACACCCTGTCCTGGTGGGGCTCTCTCCACACCCTGTCCTGGTGGGGCTTCTCCAGTTCTCCACACCCTGTCCTGGTGGGGCTTCTCCAGTTCTCCACACCCTGTCTGGGGGCTTCTCTGGGGGCTTCTTCCAGTTCTGGGGGCTTCTGGGGGCTTCTTCTGGGGGCTTCTGGGGGG	1141 ACCCTCTGCAAGGGGGACAGGCCCCCCAGGCCCAGCCCA	GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG	OY 1021 AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAAGGGGGACCTGCCACCCCCA 1080	Qy 961 TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGATGAGGACACTGTGCTC 1020	Qy 901 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG 960	Qy 841 CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA 900	Qy 781 GGGCAGTGTTCCCCCGTTAGGCTGCCTCATCCGGATATTGATTG	Qy 721 CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT 780	OY 661 CTGCAGGGATTTCACAGGCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG 720	Qy 601 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGTGAGAGGCAGTGAGAGGCACTCC 660	OY 541 AACCCGGAAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTAT 600	QY 481 GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCGCATATGAGGAGTAT 540	Qy 421 CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAGGAAGCATATATTCTTCAGG 480	Qy 361 AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAGAGGCAAGAGGTCATCTGAG 420

```
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                    LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                RESULT 11
AX775951
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                음 중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                   FEATURES
                                                                                                                                                           Sg
                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1681
                                                                                                                                                                                                                                                                                                                                                                                                                                              2017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1561
                                                                                                                                                                                                                                                                                            Homo sapiens
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                    AX775951
Sequence 221 from Patent
AX775951
AX775951.1 GI:32693669
                                                                                                                                                                                                             NP-kB activating gene
Patent: WO 03048202-A 221 12-JUN-2003;
Asahi Kasei Kabushiki Kaisha (JP)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                             Matsuda,A. and Muramatsu,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAAAGTTCTCAGTTCCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATAACCACCTTCATGTTTTGAAATAAATGTTTCCTGTTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATAACTACCTTCACGTTTTGAAATAAATGTTTTCCTGTTGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCATCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GANAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTCAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                              sapiens (human)
        /organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
755. .2338
 SGPCLCGLHLESSQFPPGF
                                                                                                                                    codon_start=1
                                                                                                                                             note="unnamed protein"
                                                                                                                                                                                                                                                                                              Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                            2647 bp
: WO03048202
                                                                                                                                              product"
                                                                                                                                                                                                                                                                                                                                                                                       mRNA
                                                                                                                                                                                                                                                                                                                                                                                       linear
                                                                                                                                                                                                                                                                                                                                                                                                                                              2060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1964
                                                                                                                                                                                                                                                                                                                                                                                       PAT 14-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1896
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1596
                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
 음 성
                                   문
                                                            δ
                                                                                       밁
                                                                                                      S
                                                                                                                                    밁
                                                                                                                                                     S
                                                                                                                                                                                 밁
                                                                                                                                                                                                Ş
                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                       吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 1888; Conserv
1649
                                                                                                                                                                                 1475
                                                                                                                                                                                                                             1415
                                                                                                                                                                                                                                                                          1355
                                                                                                                                                                                                                                                                                                                                                                  1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1115
                                            1589
                                                                                                                                                                                                                                                                                                                     1295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1055
                      961
                                                                   901
                                                                                                             841
                                                                                                                                                                                                       721
                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                              601
                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                       481
                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         _
           TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                        ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                     CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAGATCTATGT
                                                                                                                                                                                                                            CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                     CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                               AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                             GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                          CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGCTACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAATACGAAAAGGGACACCGAGCTGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
 TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                            ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                         CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                          CTTCCI
                                                                                                                                                                                                                                                                                                                                                                  GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                             CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ANATACGANAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                    CATGTGGTAGCCACGTCACAACCCCAAGACCATGGGGCATCA------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        92.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 1809; Di
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2647;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              66;
                       1020
                                                                                                                                                             840
                                                                                                                                     1528
                                                                                                                                                                                  1515
                                                                                                                                                                                                                             1474
                                                                                                                                                                                                                                                                         1414
                                                                                                                                                                                                                                                                                                                      1354
                                                                                                                                                                                                                                                                                                                                                                                                               1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1054
                                              1648
                                                                                         1588
                                                                                                                900
                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                    720
                                                                                                                                                                                                                                                                                                660
                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                  1294
                                                                                                                                                                                                                                                                                                                                                                                                                                    480
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         60
                                                                   960
                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              994
```

```
RESULT 12
AX775949
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
                                                                               ঠ
                                                                                                  밁
                                                                                                             S
                                                                                                                            밁
                                                                                                                                            ঠ
                                                                                                                                                               밁
                                                                                                                                                                          S
                                                                                                                                                                                           밁
                                                                                                                                                                                                          ঠ
                                                                                                                                                                                                                      음 성
                                                                                                                                                                                                                                                      유 성
                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                 र्
                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                           ર્
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                      2609
                                                                                   1921
                                                                                                   2549
                                                                                                                  1861
                                                                                                                                 2489
                                                                                                                                                 1801
                                                                                                                                                               2429
                                                                                                                                                                                                             1681
                                                                                                                                                                                                                            2309
                                                                                                                                                                                                                                          1621
                                                                                                                                                                                                                                                          2249
                                                                                                                                                                                                                                                                          1561
                                                                                                                                                                                                                                                                                         2189
                                                                                                                                                                                                                                                                                                       1501
                                                                                                                                                                                                                                                                                                                                     1441
                                                                                                                                                                                                                                                                                                                                                                   1381
                                                                                                                                                                                                                                                                                                                                                                                                                  1949
                                                                                                                                                                                                                                                                                                                                                                                                                                 1261
                                                                                                                                                                                                                                                                                                                                                                                                                                                1889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1829
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1201
        AX775949
Sequence 219 1
AX775949
AX775949.1 G
                                                                             ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTG
                                                                                                  CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTCAAACTCATGGAAGG
                                                                                                                                GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                      ATAACCACCTTCATGTTTTGAAATAATGTTTCCTGTTG
                                                                                                            CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTTTAAACTCATGGAAGG
                                                                                                                                                                                                      AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTTATTTTTGGTTAAA
                                                                                                                                                                                                                          GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                  GCTAGGGACGAACAGCCGTGTGCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                       CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCTTCAGA
                                                                                                                                                                                                                                                                                                                               CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGAG
                                                                                                                                                                                                                                                                                                                                                                                           GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCCTCTGCAAGGGGGACAGGCAGGCCCTCCAGGCCCACCAGCCCGGTTCCCGCGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCA
                                                                                                                                                               GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTG
                                                                                                                                                                                                                                                                                                                       CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                     GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
         GI:32693667
                        from Patent
                        2647 bp 1
                                mRNA
                                                                                   1959
                                                                      2647
                                linear
                                PAT
                                                                                                                  1920
                                                                                                                                 2548
                                                                                                                                                1860
                                                                                                                                                               2488
                                                                                                                                                                              1800
                                                                                                                                                                                              2428
                                                                                                                                                                                                            1740
                                                                                                                                                                                                                           2368
                                                                                                                                                                                                                                          1680
                                                                                                                                                                                                                                                         2308
                                                                                                                                                                                                                                                                         1620
                                                                                                                                                                                                                                                                                        2248
                                                                                                                                                                                                                                                                                                       1560
                                                                                                                                                                                                                                                                                                                       2188
                                                                                                                                                                                                                                                                                                                                     1500
                                                                                                                                                                                                                                                                                                                                                     2128
                                                                                                                                                                                                                                                                                                                                                                   1440
                                                                                                                                                                                                                                                                                                                                                                                  2068
                                                                                                                                                                                                                                                                                                                                                                                                 1380
                                                                                                                                                                                                                                                                                                                                                                                                                2008
                                                                                                                                                                                                                                                                                                                                                                                                                                1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                1948
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE
AUTHORS
TITLE
JOURNAL
                             Ś
                                                                                                                    ð
δ
              밁
                                             밁
                                                       S
                                                                          В
                                                                                      ঠ
                                                                                                                                        밁
                                                                                                                                                   δ
                                                                                                                                                                                  S
                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                á
                                                                                                        밁
                                                                                                                                                                  밁
                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                              ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 1887; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                SGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             source
                                             1175
                                                                           1115
                1235
                                                                                                         1055
                              481
                                                           421
                                                                                          361
                                                                                                                        301
                                                                                                                                         995
                                                                                                                                                       241
                                                                                                                                                                      935
                                                                                                                                                                                     181
                                                                                                                                                                                                    875
                                                                                                                                                                                                                   121
                                                                                                                                                                                                                                  815
                                                                                                                                                                                                                                                                 755
                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                \mu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hominidae;
                                                                                                                                                                                                                                                                                               Conservative
```

```
SOURCE
ORGANISM
Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Buarchontoglires; Primates; Catarrhini;
REPERENCE
AUTHORS
TITLE
JOURNAL
Abahi Kasei Kabushiki Kaisha (JP)
FEATURES
SOURCE

Organism="Homo sapiens"
//organism="Homo sapiens"
//organism="Homo sapiens"
//ob Trifter "Homo sapiens"
//ob Trifter "
```

IIGIN

Query Match

92.0%; Score 1807.4; DB 6; Length 2647;

Best Local Similarity 96.3%; Pred. No. 0;

Matches 1887; Conservative 0; Mismatches 6; Indels 66; Gaps 1;

ફ	용 성	B 8	ያ	8 8	용 성	g q	B 8	B &	유용	g &	음 성	당 성	용 성	g g	<u> </u>	B 8	B &	뮹
1621 GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT 1680	1561 GCTAGGGACGAACAGCCGTGTGCTCCCACCTCAGGGCCTTGCCGTCTGCGGCCTCCACTTG 1620	1501 CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA 1560	1441 CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG 1500	1381 GACCTGGACGTAGAGGGCCCTTGGTTCCGCCATTATGATTTCAGACAGA	1321 GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCCAACG 1380	1261 GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG 1320	1201 ATTIGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT 1260	1141 ACCCTCTGCAAGGGGACAGGCAGGCCCCTCCAGGCCCAGCCCGGTTCCCGCGGCCC 1200	GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG	1021 AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCCA 1080 	961 TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC 1020 	901 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG 960 	841 CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA 900 	781 GGGCAGTGTTCCCCCGTTAGGCTGCCTCATCCGGATATTGATTG	721 CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCAGGACAAGAAAGA	661 CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACAGGAG 720	601 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGGCCAGTGAGAGGCACTCC 660	
																		
Qy 2 Db 9	Db 9	2 0 4	2 B 49	Q Q 7	Best Loca Matches 1	ORIGIN	FEATURES source	TITLE JOURNAL	REFERENCE AUTHORS	ORGANISM	ACCESSION VERSION KEYWORDS SOURCE	RESULT 13 AX833552 LOCUS	Db 26		Db 24			Db 23 Qy 16
91 ATGCTGGGAGACTGGGAGAAXTACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG 300 	ACTGCGGGGAGGCGAAGCAAATTCGGCGGAGATCAGCCGAAAGAGCAAGTGGGTGG	ACCIDENCE ACCIDENCE SELECTION OF THE SECOND ACCIDENCE AC	1 AMAIACUMANAGUMAKIKICIMU I ISUSIIIU LAGASUMKANGUMUKI AMUKUIIIIU 120 120 111 111 111 111 111 111 111 111	A LUGANCO LUGA MANAGO CUCUGUGCAGO LOGO LOGO CACAMANDANCA CATA LA	1 ATTOCACOTTOCTOCOCCACTTTTCCTTACACACACACAC	/db_xref="taxon:9606"	Location/Qualifiers 1. 2647 /organism="Homo sapiens" /mol type="unassigned DNA"	Masuno, Y. Full-length cDNA sequences Patent: EP 1347046-A 676 24-SEP-2003; Research Association for Biotechnology (JP)	1 Isono,Y., Otsuki,T., Wakamatsu,A., Sato,H., Ishii,S., Yamamoto,J.I., Isono,Y., Hio,Y., Otsuka,K., Nagai,K., Irie,R., Tamechika,I., Seki,N., Yoshikawa,T., Otsuka,M., Nagahari,K. and		AX833552.1 GI:39919687 Homo saniens (human)	AX833552 2647 bp DNA linear PAT 15-DEC-2003		O THE STANCE OF	68	THE CONTROL OF THE CO	69	09

																• '	
1321 GGAGGA 2009 GGAGGA	1261 GTCCG 1949 GTCCG	1201 ATTT 1889 ATTT	141 AC 829 AC	69 G 81 G	1021 AAGC 1709 AAGC	961 TGGG 1649 TGGG	901 ACAAG 1589 ACAAG	841 CTCA 1529 CTCA	781 GGGC	21 CAT	15 CTG	01 CTT	541 AACC 1295 AACC	481 GATO 1235 GATO	421 CACA 1175 CACA	361 AAGT 1115 AAGT	301 GGAATGO 1055 GGAATGO
CCTCAGGGTT CCTCAGGGTT	GGAAGACACCTA GGAAGACACCTA	ATTTGGTCAGCTTCCCC	CCTCTGCAAGGGGGACAGGCAGGCCCTCCAGGCCCA	CAAACCCGAGCAAGG 	3CATCTTAGGGCCTC 	CACGTTTTTGCAA CACGTTTTTGCAA	BAATCGCCTTTAAGGTTCAGC	CCCTGCGCCTGTGGGACC	CAGTGTTCCCCGTTAGG	CACG	CAGGGATTTCACAGCCCAAATGGCGGACCGTCCAGGGGCTC 	CCTGAGGAGGATGC CTGAGGAGGATGC	CGGAGGTGGGCTA	BATACGGAACCAA BATACGGAACCAA	CACATCCAGCGCATCGA	AGTTGAAAAACCCCGG AGTTGAAAAAACCCCGG	IGCCCATGAACATCCGGGGC
CCTGGAGATTCCTG CCTGGAGATTCCTG	CCCTGTGGGCACT	CGCCACGGGCACCTCGTTCTTCCACA 	CAGGCAGGCCCCT CAGGCAGGCCCCT	CCGAGCAAGGGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGG 	GCCTCTATGAAGAAACTA 	CAACCGGTTCGTTGATAC	GGTTCAGCAGAAG GGTTCAGCAGAAG	STGTATO	AGGCTGCCTCATC	ACCCAAGAC ACCCAAGAC	CCCAAATGGCGGC CCCAAATGGCGGC	3CATTCTGGGCACTGGTGC 	GCTACTGCAGGGACCTGAG GCTACTGCAGGGACCTGAG	GCAGCGGGAACT! GCAGCGGGAACT!	CGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATT 	CCGGAAGATACCAGATO	CCGGGGCCCGATC CGGGGCCCGATC
CCTGCAGTGGAACTCC CTGCAGTGGAACTCC	CAGGGTGTGCC CAGGGTGTGCC	CGTTCTTCCACA	CCAGGCCCACCA	AGGCCTGTGCCG AGGCCTGTGCCG	actaacaagaaagcag actaacaagaaagcag	CTGGG	CGCCTCACGAAG	9000 	CGGATATTGATT	ATGGGGCATCAG ATGGGGCATCA-	ACCGTCCAGGGG ACCGTCCAGGGG	GTGCAGCTGCTGGC GTGCAGCTGCTGGC	CCACATCG CCACATCG	CTCCACATCCTC	:GGGACATTAAGG :GGGACATTAAGG	TCATGAAGGAGAAG CATGAAGGAGAAG	CCGATGTGGTCAGTCCTC
CATGCCCCGCCTCC	CAGCCCGGCCCTGG	ACCCTGTCCTGGTGG 	CCAGCCCGGTTCCCGCG	3CTTCACGTGGCGG 3CTTCACGTGGCGG	GCAGGGGGACCTGCCAC 	CCAGGGATGAGGACACTG CAGGGATGAGGACACTG	CAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCC 	ATGC	GACGGGATCTCTCT(GATCTCTCT	CATGGGGCATCAGGACAAGAAGATCTATGT CATGGGGCATCA	CTCCAAGACCAACA CTCCAAGACCAACA	AGTGAGAGG AGTGAGAGG	CCGCCTTGTTCCTCC	GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAG 	NAGCATATATTCTT NAGCATATATTCTT	AGGGCAAGAGGTCATO AGGGCAAGAGGTCATO	CTGAACATTGAGGAAATG
CAACG 1380	CTCAG 1320 CTCAG 2008	3GCT 1260 3GCT 1948	3GCCC 1200 3GCCC 1888	3GAAG 1140 3GAAG 1828	CCCCA 1080	ACTGTGCTC 1020 ACTGTGCTC 1708	3CCCG 960 3CCCG 1648	CGATA 900 CGATA 1588	rcggg 840 rcggg 1528	TATGT 780	AGGAG 720 AGGAG 1474	CACTCC 660	CTCTAT 600	AGTAT 540 AGTAT 1294	TCAGG 480 CAGG 1234	CTGAG 420 CTGAG 1174	AAATG 360 AAATG 1114

 8 8 8 8 8 8

유 성

음 성

유 성 유

밁

B	B & B & B & B & B
1621 2309 1681 2369 1741 2429 1801 1801 2489 1861 2549 1921	1381 2069 1441 2129 1501 2189 1561
GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT	GACCTGGACGTAGAGGGCCCTTGGTTCCGCCATTATGATTTCAGACAGA

RESULT 14
AK095385
LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM

US AK095385

INITION Homo sapiens cDNA FLJ38066 fis, clone CTONG2015330, moderately similar to H.sapiens mRNA for tre oncogene.

ESSION AK095385

SION AK095385.1 GI:21754631

WORDS oligo capping; fis (full insert sequence).

RGE Homo sapiens (human)

RGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae; Homo.

REFERENCE AUTHORS

RS Ota, T., Suzuki, Y., Nishikawa, T., Otsuki, T., Sugiyama, T., Irie, R., Wakamatsu, A., Hayashi, K., Sato, H., Nagai, K., Kimura, K., Makita, H., Sekine, M., Obayashi, M., Nishi, T., Shibahara, T., Tanaka, T., Ishii, S., Yamamoto, J., Saito, K., Kawai, Y., Isono, Y., Nakamura, Y., Nagahari, K., Murakami, K., Yasuda, T., Iwayanagi, T., Wagatsuma, M., Saito, H., Hosoiri, T., Kawai, Y., Kodaira, H., Kondo, H., Sugawara, M., Takahashi, M., Kanda, K., Yokoi, T., Furuya, T., Kikawa, E., Omura, Y., Abe, K., Kamihara, K., Katsute, N., Sato, K., Kikawa, E., Pujimori, K., Tanai, H., Kimata, M., Watanabe, M., Mirakawa, K., Pujimori, K., Tanai, H., Kimata, M., Watanabe, M., Hiraoka, S., Chiba, Y., Ishida, S., Ono, Y., Takiguchi, S., Watanabe, S., Yoshikawa, K., Tanas, H., Kimata, M., Watanabe, M., Hara, H., Tanase, T., Nomura, Y., Togiya, S., Komai, F., Hara, R., Takeuchi, K., Arita, M., Imose, N., Musashino, K., Yuki, H., Oshima, A., Sasaki, N., Aotsuka, S., Yoshikawa, Y., Matsunawa, H., Ichibara, T., Shiohata, N., Sano, S., Moriya, S., Momiyama, H., Satoh, N., Takami, S., Terashima, Y., Suzuki, O., Nakagawa, S., Senoh, A., Mizoguchi, H., Goto, Y., Shimizu, F., Wakebe, H., Hishigaki, H., Watanabe, T.,

밁 S 밁 र् 밁 S 밁 S 밁 8 멍 8 밁 ð 밁 र्ठ 문 ð

```
TITLE
JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 1887; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bource
                                                                      935
                                                                                                                                                                   875
                                                                                                                                                                                                                                                          815
                          241
                                                                                                                  181
                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                         755
                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (04-TUL-2002) Takao Isogai, FLJ Project (HRI Team); 2-6-7 Kazusa-Kamatari, Kisarazu, Chiba 292-0812, Japan (B-mail:genomics@hri.co.jp, Tel:81-438-52-3975, Fax:81-438-52-3986) NEDO human cDNA sequencing project supported by Ministry of Economy, Trade and Industry of Japan; cDNA full insert sequencing: Research Association for Biotechnology (RAB); cDNA library construction: Helix Research Institute (HRI) (supported by Japan Key Technology Center etc.); 5'- & 3'-end one pass sequencing: RAB, HRI, and Biotechnology Center, National Institute of Technology and Evaluation; clone selection for full insert sequencing: HRI and RAB; annotation: HRI and RAB.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sugiyama, A., Takemoto, M., Kawakami, B., Yamazaki, M., Watanabe, K., Kunagai, A., Itakura, S., Fukuzumi, Y., Fujimori, Y., Komiyama, M., Tangani, A., Fujiwara, T., Ono, T., Yamada, K., Fujii, Y., Ozaki, K., Hirao, M., Ohmori, Y., Kawabata, A., Hikiji, T., Kobatake, N., Inagaki, H., Ikama, Y., Okamoto, S., Okitani, R., Kawakami, T., Noguchi, S., Itoh, T., Shigeta, K., Senba, T., Matsumura, K., Nakajima, Y., Mizuno, T., Morinaga, M., Sasaki, M., Togashi, T., Oyama, M., Hata, H., Watanabe, M., Komatsu, T., Mizushima-Sugano, J., Satoh, T., Nomura, N., Kikuchi, H., Masuho, Y., Yamashita, R., Nakaj, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T. and Sugano, S., Nakai, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T. and Sugano, S., Nakai, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T. and Sugano, S., Nakai, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T. and Sugano, S., Nakai, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T. and Sugano, S., Nakai, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T. and Sugano, S., Nakai, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T. and Sugano, S., Nakai, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T. and Sugano, S., Nakai, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T. and Sugano, S., Nakai, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T., Nakai, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T., Nakai, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T., Nakai, K., Yada, T., Nakamura, Y., Ohara, O., Isogai, T., Nakai, K., Yada, T., Nakamura, Yangai, T., Nakai, K., Yada, T., Nakamura, Yangai, T., Nakai, K., Yada, T., Nakamura, Yangai, Yanga
                                                                                                                                                                                                                                                                                                                                                                                                     μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tanigami,A., Fujiwara,T., Shibahara,T., Goto,Y., Hirao,M., Shimizu,F., Wakebe,H., Ono,T., Hishigaki,H., Watanabe,T., Ozaki,K., Sugiyama,T., Irie,R., Otsuki,T., Sato,H., Wakamatsu,A., Ishii,S., Yamamoto,J., Isono,Y., Kawai-Hio,Y., Saito,K., Nishikawa,T., Kimura,K., Yamashita,H., Matsuo,K., Nakamura,Y., Sekine,M., Kikuchi,H., Kanda,K., Wagatsuma,M., Murakawa,K., Kanehori,K., Kikuchi,H., Goshima,A., Sugiyama,A., Kawakami,B., Suzuki,Y., Sugano,S., Nagahari,K., Masuho,Y., Nagai,K. and Isogai,T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 (bases 1 to 2647)
Isogai, T. and Yamamoto, J.
ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG
                                                                                                 AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                                                          AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGGACAAGGGGCCTAAGCCTTTTTCGA
                                                                         AGCTACAACAACAACGTCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
                                                                                                                                                                                                                                                             AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACAAGGGGCCTAAGCCTTTTCGA
                                                                                                                                                                                                                                                                                                                                                         ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGAGAGGACATCATTATG
                                                                                                                                                                                                                                                                                                                                                                                                  92.0%;
ilarity 96.3%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genet. 36 (1), 40-45 (2004)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDNAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /organism="Homo sapiens"
/mol_type="mRNA"
/db xref="taxon:9606"
/clone="CTONG2015330"
/tissue_type="trongue, tumor tissue"
/clone_lib="cTONG2"
/note="cloning vector: pME18SFL3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 1807.4;
Pred. No. 0;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                   6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                      66;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kobatake, N.,
                                                                                                                    240
                                                                                                                                                                                                                                                             874
                                                                                                                                                                                                                                                                                                           120
                                                                         994
                                                                                                                                                                   934
                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                         814
                               ঠ
                                                                                밁
                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
    밁
                                                                                                                                                                                        밁
                                                                                                                                                                                                                           ঠ
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1415
                                                                                                                                                                                                                                                                                     1829
                                                                                                                                                                                                                                                                                                                                                                                 1769
                                                                                                                                                                                                                                                                                                                                                                                                                             1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1529
                                                                                                                                                                                                                                       1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          995
                          GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                                            GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                        ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT
                                                                                                                                                                                                                                                                                     ACCCTCTGCAAGGGGGACAGGCCGCAGGCCCACCAGGCCCGGTTCCCGCGGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                             GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGGACCTGCCCACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACAAGAATCGCCTTTAAGGTTCAGCAGAAGGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCACCCTGCGCCTGTGGGACGTGTATCTGGTAGAAGGCGAACAGGCGTTGATGCCGATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATGTGGTAGCCACGTCACAACCCAAGACCATGGGGCATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCAGGGATTTCACAGCCCAAATGGCGGGGACCGTCCAGGGGCTCCAAGACCAACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTGCAGGGATTTCACAGCCCAAATGGCGGGACCGTCCAGGGGGCTCCAAGACCAACACAGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATCGATACGGAACCAAGCAGCGGGAACTACTCCACATCCTCCTGGCATATGAGGAGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACATCCAGCGCATCGACCGGGACGTAAGCGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACATCCAGCGCATCGACCGGGACGTAAGCGGGACATTAAGGAAGCATATATTCTTCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGTTGAAAAACCCCGGAAGATACCAGATCATGAAGGAGAAGGGCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGTTGAAAAACCCCCGGAAGATACCAGATCATGAAGGAGAGAAGGGCCAAGAGGTCATCTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACACTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGAATGCCCATGAACATCCGGGGCCCGATGTGGTCAGTCCTCCTGAACATTGAGGAAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATGCTGGGAGACTGGGAGAAATACAAAAGCAGCAGAAAGCTCATAGATCGAGCGTACAAG 1054
    GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG
                                                                                                 GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG
                                                                                                                                                                                                                                                                                                                                 GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCAACCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCACGAAGACGTCCAGGTGTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCAGCTGCTGGCCAGTGAGAGGCACTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AACCCGGAGGTGGGCTACTGCAGGGACCTGAGCCACATCGCCGCCTTGTTCCTCCTCTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATCTCTCTCGGG
                                                                                                                                                                                                                                                                                                                                                                                    1828
                                                                                                                                                                                                                                                                                                                                                                                                                                1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1114
                                                   1380
                                                                                                                                             1320
                                                                                                                                                                                             1948
                                                                                                                                                                                                                                            1260
                                                                                                                                                                                                                                                                                       1888
                                                                                                                                                                                                                                                                                                                                      1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1174
       2068
                                                                                                   2008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    420
```

밁

S

밁 S

문 S 밁 Ś

S

```
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 15
BC058890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KEYWORDS
Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G.,
Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,
Altschul, S.F., Zeeberg, B., Buetow, K.H., Schaefer, C.F., Bhat, N.K.,
Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,
Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,
Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,
Scheetz, T.E., Brownstein, M.J., Usdin, T.B., Toshiyuki, S.,
Carninci, P., Prange, C., Raha, S.S., Loquellano, M.A., Peters, G.J.,
McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.,
Worley, K.C., Hale, S., Garcia, A.M., Gay, L.J., Hulyk, S.W.,
Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A.,
Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,
Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,
Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,
Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,
Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smailus, D.E.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BC058890 2111 bp mRNA linear PRI 13-JUN-2005
Homo sapiens hypothetical protein LOC440452, mRNA (cDNA clone
MGC:64921 IMAGE:5744726), complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                   Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                     Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BC058890.1 GI:37590617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATAACTACCTTCACGTTTTGAAATAAATGTTTCCTGTTG 1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGACCCCAGATCACAAAGCCAACCATGCCCAGCCCCTCCCAGCACCCCCCAGCCCCACGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AATTTCCCTAGGCTTAACAACCCAAGCAAGCTTCGCGTCCTCGTTTATTTTTTGGTTAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATCGTTCTGAATTCTGACGACACCGTGAGCCTGCCTTTGTACTTCAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CATCGTTCTGAATTCTGACGACACCGTGAGGCCTGCCTTTGTACTTTTAAACTCATGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAAGTTCTCAGTTCCCTCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCTAGGGACGAACAGCCGTGTGCCTCCCACCTCAGGGCCCTTGCCTTGCCTCTGCGGCCCTCCACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGGGTGAGATCGGCTTTCGCTGCACCCAGCACTGATTCCGACCAGGGCACCCCCTTCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGTGCCATATCCCAGGAGGACCAGCTGGCCCCCTGCTGGCAGGCTGAACACCCTGCGGAG
                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 2111)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens (human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1440
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2128
```

Ş

Query Match Best Local Sim Matches 1900;

Similarity

91.6%;

Score 1799.4; Pred. No. 0; -0; Mismatches

61;

Indels

44;

Gaps

N

144

밁

28

ATGGACGTGGTAGAGGTCGCGGGCAGTTGGTGGGCACAAGAGCGACGAGAGGACATCATTATG

```
PUBMED
REFERENCE
AUTHORS
CONSRIM
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REMARK
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CONSRIM
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DNA Sequencing by: Genome Sequency Canada

info@bcgsc.bc.ca

Martin Hirst, Thomas Zeng, Ryan Morin, Michelle Moksa, Johnson
Pang, Diana Mah, Jing Wang, Kieth Fichter, Eric Chuah, Allen
Pelaney, Rob Kirkpatrick, Agnes Baross, Sarah Barber, Mabel
Brown-John, Steve S. Chand, William Chow, Ryan Babksiff, Dave
Wong, Corey Matsuo, Jaclyn Beland, Susan Gibson, Luis delRio, Ruth
Featherstone, Malachi Griffith, Obi Griffith, Ran Guin, Nancy Liao,
Kim MacDonald, Mike R. Mayo, Josh Moran, Diana Palmquist, JR
Santos, Duane Smailus, Jeff Stott, Miranda Tsai, George Yang,
Jacquie Schein, Asim Siddiqui, Steven Jones, Rob Holt, Marco Marra.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 119 Row: i Column: I This clone was selected for full length sequencing because it passed the following selection criteria: matched mRNA gi: 14149984.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Schnerch,A., Schein,J.E., Jones,S.J. and Marra,M.A.
Mammalian Gene Collection Program Team
Generation and initial analysis of more than 15,000 full-length
human and mouse cDNA sequences
Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)
12477932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Genome Sequence Centre,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (01-OCT-2003) National Institutes of Health, Gene Collection (MGC), Bethesda, MD 20892-2590, USA NIH-MGC Project URL: http://mgc.nci.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NIH MGC Project
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (bases 1 to 2111)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /organism="Homo sapiens"
/mol_type="mRNA,"
/db_xref="taxon:9606"
/clone="MGC:64921 IMAGE:5744726"
/tissue_type="Brain, adult medulla
/clone_lib="NHH MGC 119"
/lab_host="DH10B"
/product="hypothetical protein LOC440452"
/product="hypothetical protein LOC440452"
/protein_id="AAH58890.1"
/db_xref="GeneID:440452"
/db_xref="GeneID:440452"
/translation="MDVVEVVGSWWAQEREDIIMKYEKGHRAGLPEDKGPKPFGSYNN
NIDHFGMQHETELPPLTAREVKQIRREISRKSKWVKMLGEWDTYKNSRKLIDRAYQGI
PMNIRGPM%SVLLNIBEIKLKNPGRYQIMKEKGKRSSEHIQQMDLDVSGTLRRHIFFR
DRYGTKQRELLYLLAYEEYNPEVGYCRDLSHIALFILYLPEEDAFWALVQLLASER
HSLQGFHSPNGGTVQGLQDQQEHVVATSLPKTMWHQDKKDLCGCSSLGCLIRILIDG
ISLGTTLRUDYLVEGEQAFMLITKSPLRFSRSASRRRPGVARGHVFGTGSLMPGPG
MNTLCSSILGPL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="LOC440452"
/db_xref="GeneID:440452"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                gene="LOC440452"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  note="Vector: pCMV-SPORT6"
                                                                                                                                                                                                                                                                                                                                                                        codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mammalian
```

1200	1141 ACCCTCTGCAAGGGGACAGGCAGGCCCCTCCAGGCCCACCAGCCCGGTTCCCGGGGCCC
1140 1223	1081 GCCAAACCCGAGCAAGGGTCGTCGGCATCCAGGCCTGTGCCGGCTTCACGTGGCGGGAAG
1080	1021 AAGCATCTTAGGGCCTCTATGAAGAAACTAACAAGAAAGCAGGGGGACCTGCCACCCCA
1020 1103	961 TGGGCACGTTTTTGCAACCGGTTCGTTGATACCTGGGCCAGGGATGAGGACACTGTGCTC
960 1043	01 ACAAGAATCGCCTTTAAGGTTCAGCAGAAGCGCCTCA
900 984	41 CTCACCCTGCGCCTGTGGGACGTGTJ
840 924	81 GGGCAGTGTTCCCCGGTTAGGCTGCCTCATCCGGATATTGATTG
780 864	CATGGGGCATCAGG CATGTGGCATCAGG
720 804	61 CTGCAGGGATTTCACAGCCCAA
660 744	01 CTTCCTGAGGAGGATGCATTCTGGGCACTGGTGCA
600	41 AACCCGGAGGTGGGCTACTGCAGGGAC
540 624	81 GATCGATACGGAAC
480 564	21 CACATCCAGCGCAT
420 504	61 AAGTTGAAAA 45 AAGTTGAAAA
360 444	01 GGAATGCCCATGAACATCCGGGG
300 384	1 ATGCTGGGAGACTGGGAGAATA
240 324	81 ACTGCGCGGG 65 ACTGCGCGGG
180 264	121 AGCTACAACAACCACCATCGATCATTTGGGGATTGTACATGAGACGGAGCTGCCTCCTCTG
120	61 AAATACGAAAAGGGACACCGAGCTGGGCTGCCAGAGGACA

음 성 음 성

ち 음 ち

B 8

유 성

938 064	,
1878 ACGACACCGTGAGCCTGCCTTTGTACTTTAAACTCATGGAAGGATAACTACCTTCACGTT 	D Q
1818 GCCAACCATGCCCAGCCCCTCCCAGCACCCCCAGGCCCCACGACCATCGTTCTGAATTCTG	ду 2y
1758 AGAAAGAGTGCAGCTCGAGAGAGATTCAGAGATGGAACACACCAGACCCCAGATCACAAA	Qy 1
1698 CAACCCAAGCAAGCTTCGCGTCCTCGTTTATTTTTGGTTAAACTTATGAAAATGTATTI 	Qy 1
1638 TCCAGGCTTCTAGAAGCATCTGGGCCAGGGCTCATGGCTGGATAATTTCCCTAGGCTTAA	D Q 1
1578 GTGTGCTCCACCTCAGGGCCTTGCCTCTGCGGCCTCCACTTGGAAAGTTCTCAGTTCCC 	Db 1
1525CCCAGCACTGATTCCGACCAGGCACCCCCTTCAGAGCTAGGGACGACAGCC	Qy 1
1501 CGGGTGAGATCGGCTTTCGCTGCA	
1441 CGTGCCATATCCCAGGAGGACCAGCTGGCCCCTGCTGCAGGCAG	B 6
1381 GACCTGGACGTAGAGGGCCCTTGGTTCCGCCATTATGATTTCAGACAGA	B &
1321 GGAGGACCTCAGGGTTCCTGGAGATTCCTGCAGTGGAACTCCATGCCCCGCCTCCCAACG	B 64
1261 GTCCGGGAAGACACCTACCCTGTGGGCACTCAGGGTGTGCCCAGCCCGGCCCTGGCTCAG	Qy
1201 ATTTGGTCAGCTTCCCCGCCACGGGCACCTCGTTCTTCCACACCCTGTCCTGGTGGGGCT	Qy 1
	Db 1

Search completed: April 5, 2006, 19:03:48 Job time : 9950 secs

Ś

음 &

8 8 8 8 8 8 8 8

음 성 음

১ ৪ ১